MULTIPLE INPUT PRODUCTIVITY INDEXES

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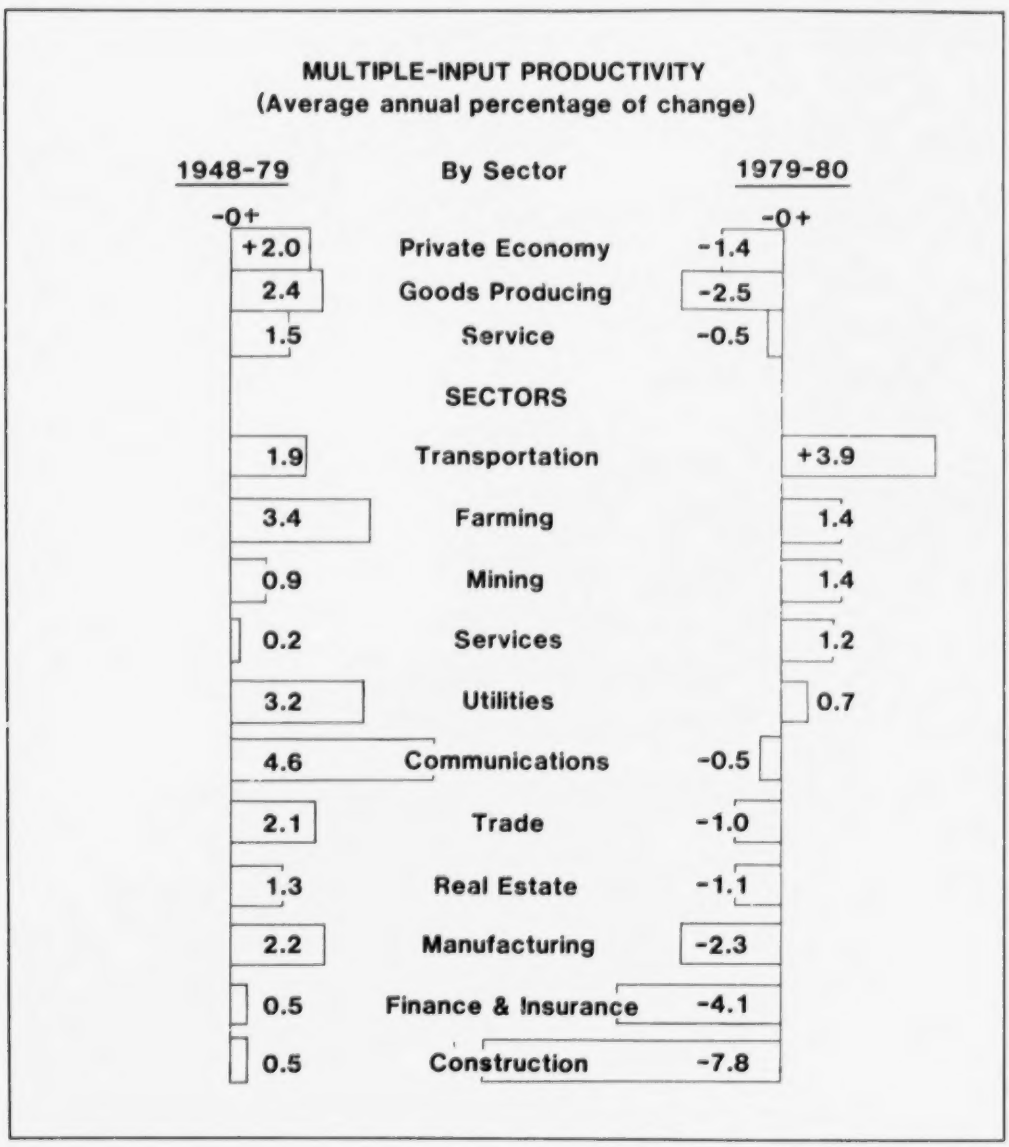

AMERICAN PRODUCTIVITY CENTER
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TABLE VI. MANUFACTURING INDUSTRIES

16. Machinery, except Electrical

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.6	63.6	29.8	56.0	67.1	59.1	126.2	46.9
1949	33.5	52.9	28.4	47.4	70.6	63.2	117.7	53.7
1950	35.4	56.9	29.8	50.8	69.6	62.2	118.7	52.4
1951	46.0	70.7	34.1	62.5	73.6	65.0	135.0	48.2
1952	50.5	72.6	35.8	64.4	78.4	69.5	141.0	49.3
1953	49.3	73.5	37.3	65.4	75.5	67.1	132.3	50.7
1954	44.2	64.6	38.0	58.7	75.3	68.3	116.1	58.8
1955	45.1	67.8	39.7	61.5	73.4	66.6	113.6	58.6
1956	49.9	73.9	42.9	67.0	74.5	67.5	116.4	58.0
1957	47.1	72.7	45.0	66.5	70.8	64.8	104.6	61.9
1958	39.8	60.9	43.9	57.0	69.7	65.3	90.6	72.1
1959	46.2	67.1	44.4	62.0	74.6	68.9	104.3	66.1
1960	46.2	67.7	44.9	62.6	73.8	68.2	103.0	66.3
1961	46.1	65.0	45.6	60.6	76.1	71.0	101.2	70.2
1962	51.6	69.1	47.9	64.4	80.2	74.7	107.9	69.2
1963	53.8	71.5	49.2	66.5	80.8	75.2	109.2	68.9
1964	60.4	76.1	52.1	70.7	85.4	79.4	115.9	68.6
1965	66.1	83.3	55.8	77.1	85.7	79.4	118.4	67.0
1966	73.7	93.0	60.8	85.8	85.9	79.3	121.2	65.4
1967	74.3	93.4	64.9	87.1	85.3	79.5	114.4	69.5
1968	74.3	91.7	67.6	86.4	86.0	81.0	110.0	73.7
1969	77.5	95.7	72.2	90.6	85.6	81.0	107.3	75.4
1970	77.3	91.0	75.4	87.6	88.3	84.9	102.5	82.8
1971	72.0	82.5	76.0	81.0	88.8	87.3	94.8	92.1
1972	81.5	88.6	78.7	86.5	94.3	91.9	103.5	88.8
1973	92.2	99.3	85.1	96.2	95.9	92.9	108.3	85.8
1974	94.2	103.3	93.1	101.1	93.3	91.2	101.2	90.1
1975	85.9	93.8	93.7	93.8	91.5	91.5	91.7	99.9
1976	92.8	94.7	95.7	94.9	97.8	98.0	97.0	101.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	108.0	106.7	107.7	100.2	99.9	101.1	98.8
1979	115.5	114.3	116.0	114.6	100.8	101.1	99.6	101.5

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TABLE VI. MANUFACTURING INDUSTRIES

20. Miscellaneous Manufactures

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	40.2	100.1	50.3	89.0	45.2	40.2	79.9	50.3
1949	36.2	89.7	50.8	81.1	44.6	40.3	71.2	56.6
1950	41.1	95.0	56.0	86.3	47.6	43.2	73.4	58.9
1951	43.1	95.7	65.0	88.9	48.4	45.0	66.3	67.9
1952	44.1	93.4	72.9	88.9	49.6	47.3	60.5	78.1
1953	45.8	99.3	71.3	93.1	49.2	46.1	64.2	71.8
1954	43.9	90.6	83.0	89.1	49.3	48.5	52.9	91.6
1955	48.7	92.9	81.8	90.6	53.7	52.4	59.5	88.1
1956	49.0	93.6	89.3	92.9	52.7	52.3	54.8	95.4
1957	48.2	89.8	91.1	90.3	53.4	53.7	52.9	101.5
1958	47.4	86.1	92.2	87.7	54.1	55.1	51.4	107.2
1959	53.1	90.0	94.8	91.3	58.1	59.0	56.0	105.4
1960	52.1	89.4	88.2	89.4	58.3	58.3	59.1	98.6
1961	53.4	87.3	82.2	86.4	61.8	61.2	64.9	94.2
1962	55.9	89.7	79.7	87.7	63.7	62.4	70.2	88.8
1963	56.3	88.2	78.6	86.4	65.2	63.8	71.6	89.1
1964	58.6	90.0	79.1	87.9	66.7	65.2	74.1	87.9
1965	62.4	96.5	80.3	93.2	66.9	64.6	77.7	83.2
1966	67.1	101.8	86.6	98.8	67.9	65.9	77.4	85.1
1967	66.9	98.0	90.7	96.7	69.2	68.2	73.7	92.5
1968	72.1	98.1	89.9	96.6	74.7	73.5	80.2	91.7
1969	76.1	98.8	92.7	97.8	77.8	77.0	82.1	93.8
1970	73.6	95.4	93.6	95.1	77.3	77.1	78.6	98.1
1971	77.0	93.0	93.2	93.1	82.8	82.8	82.6	100.2
1972	85.1	99.2	95.1	98.5	86.5	85.8	89.6	95.9
1973	90.5	102.1	99.5	101.6	89.1	88.7	91.0	97.5
1974	87.3	101.0	102.2	101.2	86.2	86.4	85.4	101.2
1975	89.8	92.6	95.1	93.0	96.5	96.9	94.4	102.7
1976	92.5	96.5	99.6	97.0	95.4	95.9	92.9	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	105.4	103.4	104.9	96.0	95.6	97.5	98.1
1979	102.4	105.7	105.7	105.5	97.1	96.9	96.9	100.0

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PREFACE

The American Productivity Center was pleased with the reception of our new multiple-input productivity index series in calendar 1980. We anticipate substantial broadening of the use of the material in 1981 as increasing numbers of persons discover how effectively the series fills prior gaps in coverage of current productivity data.

The APC is steadily improving this service, in both breadth and depth. We are pleased to inaugurate, in this first issuance of the 1981 subscription, an entirely new dimension to the series: data for selected years on levels of labor productivity (real output per hour) and of capital stock per hour (which is one of the primary determinants of both levels and trends of productivity) for sectors and for individual industries.

Many of our subscribers already know of the strong recommendations made by the General Accounting Office, the Joint Economic Committee of Congress and by the Rees Committee on the need for improving existing productivity measures. We are also well aware of the limitations in the useful interpretation of indexes relating value-added output to the weighted inputs of capital and of labor -- the so called "total factor" index pioneered by Professor John Kendrick, of which this APC multiple-input series is a variety.

Accordingly, with technical guidance and support from Dr. Kendrick, the APC has stimulated the initiation of developmental work on a total productivity index series, to complement this multiple-input series. The work is under way at Pace University, under the direction of Dr. Elliot Grossman. Funding support is provided by the APC, a Foundation, and other private sector donors. It is our hope that this new series will be ready for publication, at least for manufacturing industries, before the end of calendar 1981, and thus will be included in this subscription year.

Despite the obvious value of "macro" productivity measures of the economy, its major sectors, and industry groups, the productivity data of most direct value to industrial leaders and to other users is that which relates to specific industries, as well as to plants. Accordingly, at my request the APC will be expanding our multiple-input index service to cover additional individual industries. Since such coverage involves significant new cost, the APC will welcome grants by industry associations or individual firms to cover the modest developmental costs for these additions. Once in place, APC will continue such new series at its own expense.

C. Jackson Grayson, Jr.

INTRODUCTION

This brochure constitutes the initial issuance of the 1981 subscription for APC's multiple input productivity index series. This year's service will provide four quarterly issuances with quarterly data for the private domestic business economy; farming; manufacturing; nonfarm-nonmanufacturing; and nonfinancial corporations. Data will be presented annually for goods producing and services producing industries; the 11 major sectors of the economy; and the twenty SIC 2-digit manufacturing industry groups.

In this issuance, historical data are provided for the quarterly series as well as the annual index series, for all line items covered by the program. These indexes, for the span 1948 to date, reflect both the revisions to the 1977 Census Benchmark plus some adjustments made by BLS in the labor input series, especially in the manufacturing industries sector. Also, slight adjustments in the coverage for certain of the service industries were effected to conform the initial Kendrick approach more precisely to current sector definition used by the Bureau of Labor Statistics. Hence, the labor productivity growth rates conform to those published by the BLS.

This issuance presents the first current year figures on levels of productivity, by sector and by industry, with computations on real output per hour and capital stock per hour, for selected years. This material, which is computed from the basic data underlying the indexes of trend in the APC series, should prove of significant value to officials of industry, academia and the Government. It will also provide tangible, current information on an area of widespread academic controversy -- the relative level of productivity in goods producing versus services producing industry.

Also in this issuance, data is presented on two new manufacturing industries: iron and steel, and electronic components -- both of substantial significance in the domestic and world manufactured goods picture. The electronic components work has been funded by IBM, National Semiconductor, and Varian Associates. As funding permits, the APC will expand the provision of current productivity data for individual manufacturing industries. Subscribers interested in coverage for a specific industry are urged to contact the APC Measurement Department.

HIGHLIGHTS: RECENT PRODUCTIVITY DYNAMICS

This detailed multiple-input productivity data by individual sector and manufacturing industry, provides the base for a new and more useful analysis of productivity dynamics of the U.S. private business economy from 1948-80. However, emphasis should be on the experience of the economy as a whole in calendar 1980:

- o 1980 marked the third successive year in which labor productivity for the private domestic economy declined. This is unprecedented in the Nation's productivity history.

- o The declines in 1978 and 1979 appear to be the only non-recessionary period in which there has been a decline in labor productivity.

- o While a further productivity loss in recession-plagued 1980 was to be expected, the prevalence and severity of losses in a majority of the individual sectors and manufacturing industry groups, coming on top of the earlier-year declines, contributed substantially to the Nation's increasing economic problem:

- o Multiple-input productivity -- reflecting the weighted input of labor and capital -- dropped almost a full percentage point for the entire private domestic economy in 1978 and 1980, after no significant change in 1978.

- o Capital productivity in 1980 was more than three index points below the 1977 level -- a decline averaging more than 1% per year.

- o The capital/labor ratio -- which is normally a harbinger of increasing labor productivity when it rises, increased sharply (nearly 2% per year) from 1978 to 1980; but labor productivity declined each year. This fact indicates clearly the impact of the abnormal forces at work during the late 1970's. The most notable of the Nation's economic problems was undoubtedly the increasingly-severe energy crisis, as represented by the 1979-80 "second OPEC oil price shock" following the start of the Iran-Iraq war. The direct result was a world-wide recession beginning in early 1980, with a production and productivity slowdown still continuing in most industrial nations.

An abrupt slowdown of growth in real national product was accompanied by drops in plant capacity utilization and seemingly-uncontrollable acceleration of the stagflation of the seventies, with rampant inflation and high levels of unemployment. Productivity-enhancing industrial investment which might otherwise have been made was postponed in many instances, due to market uncertainties coupled with the abnormally-high "hurdle rates" for capital investment stemming from high interest rates coupled with high prices for machinery and equipment.

While variations in trends for individual sectors and industries have underlain the averages for the economy for many years, the available date tend to indicate that the disparities in productivity experience have tended to increase during the seventies.[1]

Underlying the 1.4% decline in multiple-input productivity from 1979 to 1980 for the economy were a significant weighted-average drop (2.5%) for the goods-producing industries and a modest (0.5%) decline for the services industries. The severity of the goods-producing industries' productivity loss was highlighted by the very severe plunge (7.8%) for the construction industry, which was plagued both by the recession-reduced demand and by the effect of extremely high interest rates for home mortages as well as for construction loans.

Lowered utilization of plant capacity in manufacturing, plus the slowdown in investment for improved technology and adjustments to meet energy shortages -- including a clear substitution of labor for energy-intensive capital use -- led directly to an average drop of 2.3% in productivity for all manufacturing (a sector which normally is a leader in productivity gains). Also, agriculture, which had been the productivity-growth "star" of the 70's, recorded only a modest 1.4% rise in 1980 -- less than half of its average gain for the full 1948-79 span.

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1 A special issue of "Business Week," June 1, 1981, "America's Re-structured Economy" presents the thesis that there are now five distinctly-separate economies in the U.S., where one was before, including: 1) Old-line industry; 2) Energy; 3) High technology; 4) Agriculture; and 5) Services.

The only significant multiple-input productivity gain in 1980 was recorded by the transportation sector (3.9%). Public utilities (a leading gainer, 1948-79) increased only 0.7% in 1980; and the communications sector, the most rapid gainer during the past two decades, experienced a decline of 0.5% in 1980.

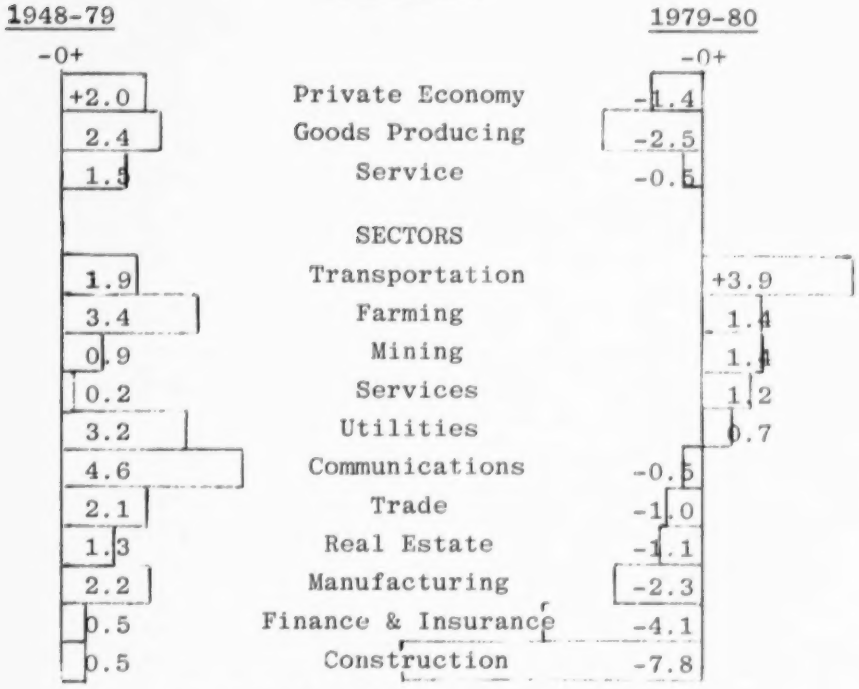
Digging still deeper, the 2.3% average drop in multiple-input productivity for all manufacturing was a composite which included a total of 13 industry-group productivity losses in 1980. Ten of these declines were in excess of 2.5%, ranging up to 7.4% for the major primary metals and transportation equipment industry groups -- both of which were plagued by declining demand and loss of markets to overseas producers. One industry showed no change, and six industry groups recorded productivity gains. Gaining groups tended to be those focused primarily on the domestic market such as food and tobacco. (See Chart 1).

In general, a similar pattern of underlying divergence of trends between sectors and industry groups emerged in the labor productivity series. However, the average productivity decline for the private business economy (0.3%) was less than in the multiple-input measure that reflects capital as well as labor input. Similarly, the losses for sectors and manufacturing industry groups were generally less severe (except for the distressed construction sector); and there were somewhat more significant increases -- ranging up to the 5.0% for the transportation sector.

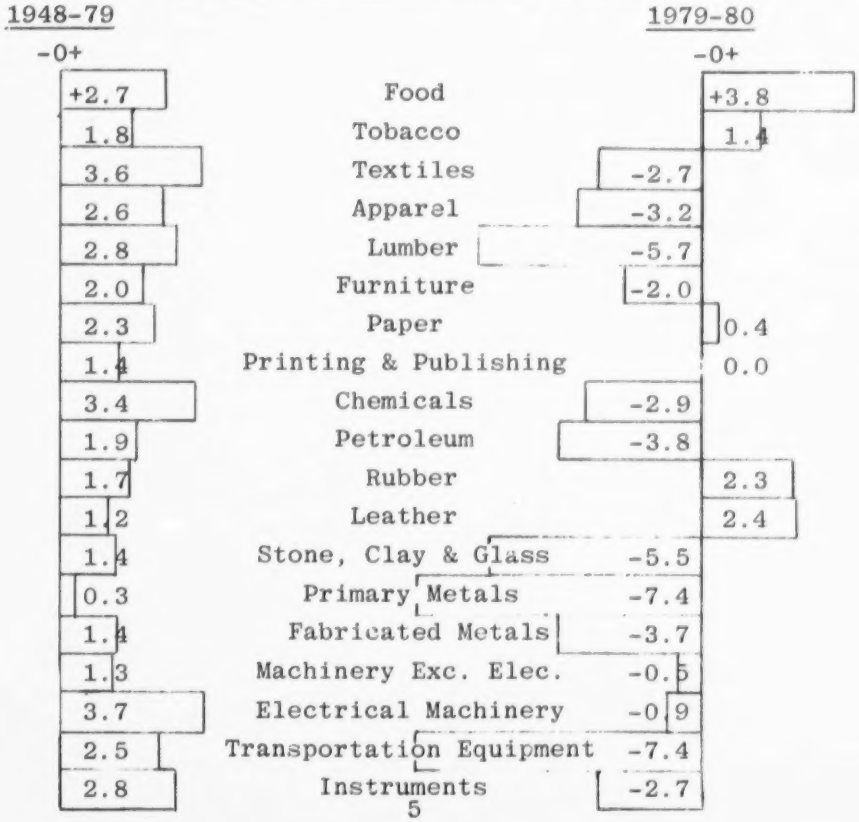
Of the twenty manufacturing industry groups; eight recorded gains (to 5.2% for petroleum); one showed no change; and eleven recorded productivity losses (to 4.0% for the large primary metals group).

MULTIPLE-INPUT PRODUCTIVITY
(Average annual percentage of change)

By Sector



By Manufacturing Industry Group



SPECIAL FEATURE

New Data on Levels of Productivity and Capital Stock Per Hour

The American Productivity Center is now providing for selected years, data on real GDP per hour for the economy and the several sectors thereof. In addition, both levels and growth rates of real capital stock per hour are shown for the same years. The years selected for this presentation are those which have been noted by Kendrick, Cox, Jorgenson and others as "swing years" in productivity growth analysis:[1]

1948: The beginning of the "post World War II era"; and the initial year in the APC multiple-input index series;

1965: The terminal year of the post-war "golden period" of rapid productivity growth;

1973: The year of the "OPEC oil shock" which triggered the world-wide recession and the complete productivity-growth collapse of the 1970's; and

1980: The most recent year for which annual data are available; also the beginning year of the third recession in a single decade; and the third successive year in which labor productivity declined -- for the first time in our history

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1 The APC could provide comparable data on levels for other years on request. Reasonably accurate estimates can be made by applying the relevant trend indexes to the key-year levels and interpolating.

Levels of Labor Productivity by Sector

Figure 1 presents a revealing indication of the variations in levels of labor productivity for the different sectors of the economy, especially when set in context of the share of hours of labor input for the sector, as a percent of the total private business economy:

Figure 1: Output Per Hour and Shares of Total Hours, by Sector, 1948 and 1980

Sector	Share of total Hours (%)		Real GDP[1] Per Hour($)	
	1948	1980	1948	1980
Private business economy	100.0	100.0	3.48	7.49
Private goods industries:	54.3	40.8	2.93	7.37
Agriculture	18.3	4.3	1.13	5.17
Mining	1.9	1.5	5.32	9.54
Construction	5.1	7.0	4.49	4.94
Manufacturing	29.0	28.0	3.65	8.20
Private services industries:	45.7	59.2	4.12	7.57
Transportation	6.5	4.4	4.11	8.39
Communications	1.6	1.8	3.11	18.53
Public Utilities	1.1	1.2	4.50	19.87
Trade	22.9	25.6	2.97	6.32
Finance & Insurance	2.7	5.4	5.61	7.43
Real Estate	0.9	1.6	24.10	26.69
Services	10.0	19.1	4.63	5.65

Contrary to the frequently-cited "fact" that the productivity for the total economy has been lowered by the shift of hours and employment to the service industries, productivity (real GDP per hour) for the services industries was higher than for the goods-producing industries in 1948; and is still higher in 1980, though average growth-rates for the services have not been as rapid as in goods-producing industries. Three of the services industries sectors (communication, public utili- ties, and real estate) have actual 1980 levels of productivity far higher than that of any sector in the goods-producing industries.

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1 Constant (1972) dollars.

The two sectors with the lowest actual level of productivity in 1980 were in the goods-producing group: construction and agriculture. Even the lowest-productivity services sector (professional, health and medical, educational, residential and other services) ranked above agriculture and construction. Mining, despite its truly dismal productivity growth rates from 1965 to date, had the highest level of productivity of all the goods-producing industries, in both 1948 and 1980. The manufacturing sector, frequently cited as the "productivity leader" among all the sectors, ranked in 1980 only sixth among all sectors in its productivity level. At $8.20 per hour, its productivity exceeded only the five lowest-ranking sectors: construction, agriculture, trade, finance/insurance and "other services."

Capital Stock Per Hour, By Sector

Productivity experts agree that the relative input of capital stock per employee (or per employee hour) is a major determinant (perhaps the major determinant) of levels of productivity, but quantitative data on the capital/labor relationship have remained sparse, and generally not up to date.

The APC Multiple-Input Productivity Index service now provides "real" (1972 constant dollar) capital stock per hour, for each of the major sectors of the industry, for the "key years" identified above. Capital stock per hour more than doubled between 1948 and 1980 for the private business economy and for the total private goods industries group, but increased less than three-fourths for the total private services group -- despite the extremely-rapid growth in capital stock per hour in the communications and public utilities industries. Highest capital stock growth rates were recorded by communications and agriculture at 4.9%/year.

The levels of capital stock per hour showed extremely high deviations throughout the entire post-war period, with a larger absolute range in 1980 than in the initial year 1948. The sectors with the highest 1980 capital stock per hour were public utilities, mining, communications and (perhaps surprisingly) agriculture. Capital stock per hour in manufacturing (which many observers assume to be relatively high) is in fact comparatively low at $15.57 per hour in 1980. This figure is above only the finance/insurance, trade, and construction sectors. Capital stock per hour in manufacturing is less than 10% of the level for the public utilities sector; and just over one-fourth the levels for the mining and agriculture.

Figure 2: Capital Stock per Hour by Sector, 1948 and 1980

Sector	Real (1972$) Capital Stock per Hour 1948 $	1980 $	Growth rate: 1948-1980 (%/yr)
Private Business Economy	11.83	23.66	2.2
Total Private Goods	8.83	19.49	2.5
Manufacturing	7.03	15.57	2.5
Mining	22.76	59.86	.
Construction	1.68	3.80	2.6
Agriculture	12.30	57.65	4.9
Total Private Service	15.38	26.45	1.7
Transportation	16.57	31.26	2.0
Communications	11.36	52.37	4.9
Public Utilities	49.45	159.58	3.7
Trade	2.75	8.61	3.6
Finance & Insurance	3.95	14.29	4.1
Services	15.51	24.35	1.4
Real Estate[1]			

This data when added to productivity data provides support to the basic thesis that growth in capital stock per hour supports productivity growth. There also, however, appears to be evidence that other factors are influencing the pace of productivity growth and decline for particular sectors and manufacturing industry groups, over-riding in some instances the otherwise-favorable impact of the investment per hour ratio. In 1948-80, growth rates of capital stock per hour and output per hour formed a definite correlation for the manufacturing industry groups, with the productivity gain sharper than the capital stock per hour gain in most instances. This pattern broke down badly, however, during recession and inflation-plagued 1973-80, with deviations from a correlation almost more marked than the correlation tendency. (Figures 3-6, inclusive).

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1 Capital stock per hour not technically comparable.

GROWTH RATE CORRELATIONS

Capital Stock/Hour and Labor Productivity
(Average annual percentage of change)

Chart 3
Sectors (1948-80)

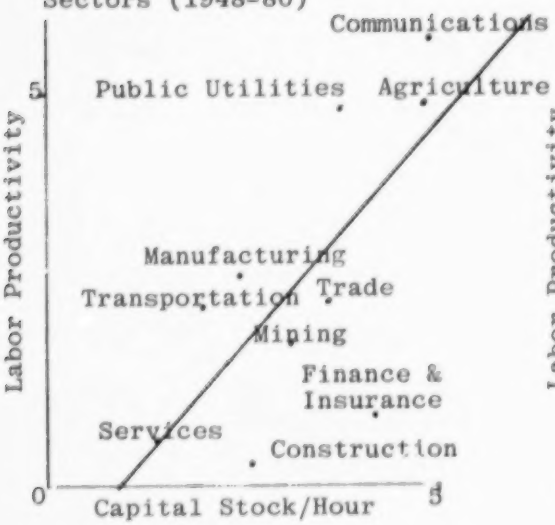


Chart 4
Sectors (1973-80)

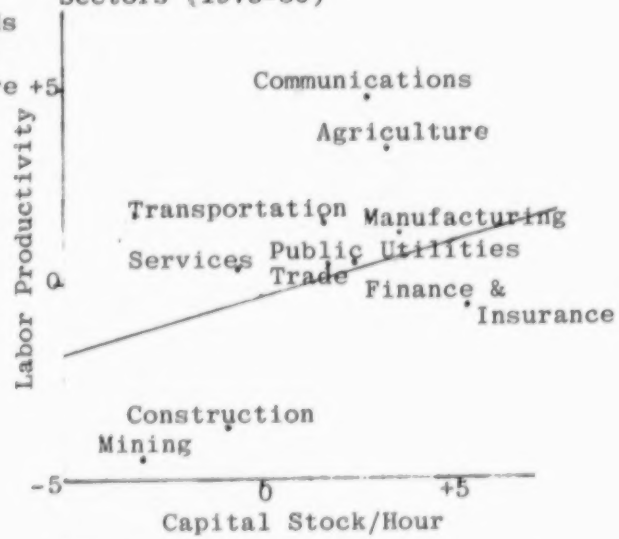


Chart 5
Manufacturing Industries (1948-80)

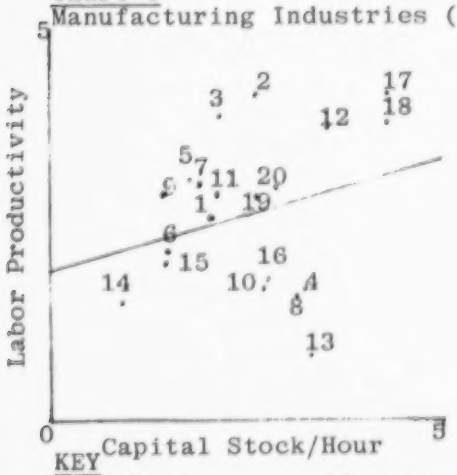
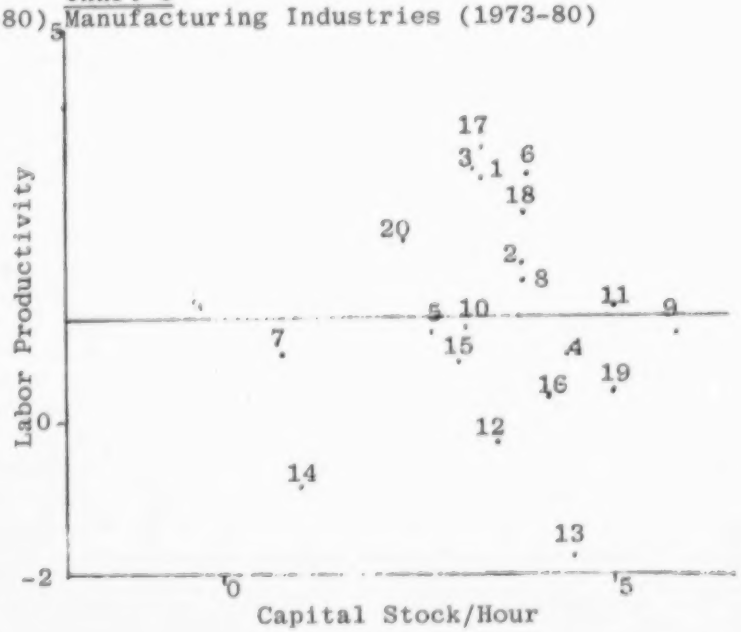


Chart 6
Manufacturing Industries (1973-80)



KEY

1 apparel	11 paper
2 chemicals	12 petroleum
3 electrical machinery	13 primary metals
4 fabricated metals	14 printing & publishing
5 food	15 rubber
6 furniture	16 stone, clay & glass
7 intruments	17 textiles
8 leather	18 tobacco
9 lumber	19 transportation equipment
10 machinery, exc. electrical	20 misc. manufactures

Table I
Multiple-Input Productivity
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
1. Multiple-Input Productivity					
Private Business Economy	2.0%	2.6%	1.8%	0.4%	-1.4%
Goods Producing Sector	2.4	3.2	2.3	0.4	-2.5
Service Producing Sector	1.5	1.8	1.4	0.5	-0.5
Farming	3.4	4.1	3.1	2.1	1.4
Manufacturing Industry	2.2	2.6	2.3	0.8	-2.3
Nonfarm Nonmanufacturing Industry	1.3	1.9	1.1	0.1	-0.9
Nonfinancial Corporate Business	2.0	2.6	1.6	0.8	0.0
2. Labor Productivity (Output per hour worked)					
Private Business Economy	2.5%	3.2%	2.4%	0.8%	-0.3%
Goods Producing Sector	3.1	4.0	2.7	0.9	-1.2
Service Producing Sector	2.0	2.3	2.2	0.7	0.3
Farming	4.9	5.3	5.0	3.6	3.6
Manufacturing Industry	2.7	3.0	2.8	1.5	-0.5
Nonfarm Nonmanufacturing Industry	1.8	2.4	1.8	0.2	-0.2
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	0.5
3. Capital Productivity (Output per unit of capital input)					
Private Business Economy	0.4%	0.8%	0.1%	-0.5%	-3.6%
Goods Producing Sector	0.6	1.1	0.8	-1.1	-5.8
Service Producing Sector	0.3	0.5	-0.2	0.1	-1.9
Farming	-0.1	-0.3	0.0	0.6	-0.5
Manufacturing Industry	0.3	0.9	0.3	-1.5	-7.2
Nonfarm Nonmanufacturing Industry	0.1	0.4	-0.4	-0.3	-2.1
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-1.1

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Table II

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
1. Output (Real product, in 1972 dollars)					
Private Business Economy	3.5%	3.6%	3.9%	2.7%	-0.8%
Goods Producing Sector	3.2	3.6	3.3	1.7	-4.2
Service Producing Sector	3.7	3.6	4.3	3.4	1.6
Farming	1.1	0.9	0.9	2.0	1.3
Manufacturing Industry	3.6	4.0	4.1	2.1	-4.6
Nonfarm Nonmanufacturing Industry	3.6	3.6	3.9	3.0	0.9
Nonfinancial Corporate Business	4.4	4.6	5.0	3.0	-0.7
2. Labor Input (Hours worked)					
Private Business Economy	0.9%	0.4%	1.4%	1.9%	-0.5%
Goods Producing Sector	0.1	-0.4	0.6	0.8	-3.1
Service Producing	1.7	1.2	2.1	2.7	1.3
Farming	-3.6	-4.2	-3.9	-1.6	-2.3
Manufacturing Industry	1.0	1.0	1.2	0.6	-4.1
Nonfarm Nonmanufacturing Industry	1.7	1.2	2.1	2.7	1.1
Nonfinancial Corporate Business	1.9	1.5	2.8	2.0	-1.2

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Table II (Cont d)

Outputs, Inputs and Capital-Labor Ratio
By Major Segment of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
3. Capital Input					
Private Business Economy	3.1%	2.8%	3.7%	3.1%	2.9%
Goods Producing Sector	2.5	2.4	2.5	2.9	1.8
Service Producing Sector	3.5	3.1	4.5	3.3	3.5
Farming	1.2	1.2	0.9	1.4	1.8
Manufacturing Industry	3.3	3.1	3.7	3.6	2.8
Nonfarm Nonmanufacturing Industry	3.5	3.2	4.3	3.3	3.1
Nonfinancial Corporate Business	3.9	3.7	5.1	2.7	0.4
4. Capital - Labor Ratio					
Private Business Economy	2.2%	2.4%	2.3%	1.2%	3.5%
Goods Producing Sector	2.4	2.8	1.9	2.0	5.0
Service Producing Sector	1.7	1.8	2.3	0.6	2.2
Farming	5.0	5.7	5.0	3.0	4.2
Manufacturing Industry	2.4	2.1	2.5	3.1	7.2
Nonfarm Nonmanufacturing Industry	1.7	2.0	2.2	0.5	1.9
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.6

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Table III a.

Multiple-Input Productivity
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.0%	2.6%	1.8%	0.4%	-1.4%
Goods Producing Sector	2.4	3.2	2.3	0.4	-2.5
Service Producing Sector	1.5	1.8	1.4	0.5	-0.5
Farming	3.4	4.1	3.1	2.1	1.4
Manufacturing	2.2	2.6	2.3	0.8	-2.3
Food	2.7	2.9	4.1	0.0	3.8
Tobacco	1.8	2.3	2.1	0.3	1.4
Textiles	3.6	3.9	3.0	3.7	-2.7
Apparel	2.6	2.0	3.0	3.8	-3.2
Lumber	2.8	4.5	1.2	0.2	-5.7
Furniture	2.0	2.1	0.8	3.3	-2.0
Paper	2.3	2.2	4.0	0.0	0.4
Printing & Publishing	1.4	2.4	1.0	-1.1	0.0
Chemicals	3.4	3.9	4.2	1.1	-2.9
Petroleum	1.9	3.4	2.0	-2.3	-3.8
Rubber	1.7	2.3	2.0	-0.3	2.3
Leather	1.2	1.0	1.8	1.0	2.4
Stone, Clay & Glass	1.4	2.0	0.9	0.1	-5.5
Primary Metals	0.3	0.9	0.9	-1.9	-7.4
Fabricated Metals	1.4	1.7	1.3	0.6	-3.7
Machinery, exc. Elec.	1.3	1.4	1.4	0.8	-0.5
Electrical Machinery	3.7	4.3	2.8	3.2	-0.9
Transportation Equipment	2.5	3.4	2.3	0.3	-7.4
Instruments	2.8	3.5	2.4	1.1	-2.7
Miscellaneous Manufac.	2.6	2.3	3.6	2.0	1.4
Nonfarm Nonmanufacturing	1.3	1.9	1.1	0.1	-0.9
Mining	0.9	2.3	1.7	-4.0	1.4
Construction	0.5	2.4	-1.0	-3.1	-7.8
Transportation	1.9	2.0	2.4	0.9	3.9
Railroad	2.8	4.2	1.2	0.7	4.6
Nonrail	1.1	0.5	2.7	0.9	3.3
Communications	4.6	5.4	3.2	4.3	-0.5
Public Utilities	3.2	5.6	1.5	-0.9	0.7
Trade	2.1	2.4	2.6	0.5	-1.0
Finance & Insurance	0.5	1.1	0.5	-0.9	-4.1
Real Estate	1.3	1.9	0.0	1.2	-1.1
Services	0.2	0.3	-0.1	0.2	1.2
Nonfinancial Corporate Business	2.0	2.6	1.6	0.8	0.0

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Table III b.

Labor Productivity
(Output per Hour)
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.5%	3.2%	2.4%	0.8%	-0.3%
Goods Producing Sector	3.1	4.0	2.7	0.9	-1.2
Service Producing Sector	2.0	2.3	2.2	0.7	0.3
Farming	4.9	5.3	5.0	3.6	3.6
Manufacturing	2.7	3.0	2.8	1.5	-0.5
Food	3.1	3.2	4.6	0.7	4.5
Tobacco	3.7	4.0	4.0	2.6	3.0
Textiles	4.4	5.0	3.3	4.4	-1.9
Apparel	2.8	2.0	3.3	4.2	-3.0
Lumber	3.1	4.3	1.8	1.6	-1.9
Furniture	2.2	2.1	1.1	3.8	-0.9
Paper	2.8	2.5	4.5	1.3	2.9
Printing & Publishing	1.5	2.4	1.5	-0.9	-0.1
Chemicals	4.3	4.8	4.8	2.5	-1.3
Petroleum	3.6	5.5	3.3	-1.2	5.2
Rubber	1.9	2.5	2.2	0.1	4.2
Leather	1.5	1.2	2.2	1.5	3.2
Stone, Clay & Glass	1.9	2.6	1.2	0.9	-3.0
Primary Metals	0.9	1.5	1.5	-1.3	-4.0
Fabricated Metals	1.8	2.1	1.5	1.3	-2.2
Machinery, exc. Elec.	1.7	1.7	2.0	1.4	0.6
Electrical Machinery	4.1	4.5	3.4	3.8	0.0
Transportation Equipment	3.0	3.6	3.1	1.0	-3.0
Instruments	3.2	3.8	3.1	1.3	-2.1
Miscellaneous Manufac.	3.0	2.8	4.0	2.2	3.1
Nonfarm Nonmanufacturing	1.8	2.4	1.8	0.2	-0.2
Mining	1.9	4.3	2.4	-5.2	0.1
Construction	0.6	2.6	-0.9	-3.1	-7.9
Transportation	2.2	2.3	2.6	1.1	5.0
Railroad	3.3	4.8	1.7	1.1	6.3
Nonrail	1.5	0.8	3.2	1.3	4.3
Communications	5.9	6.5	4.8	5.7	0.2
Public Utilities	4.9	6.9	3.8	0.6	1.4
Trade	2.5	2.8	3.2	0.8	-0.3
Finance & Insurance	1.1	1.3	1.2	-0.2	-3.1
Real Estate	0.4	1.2	0.1	-1.4	-2.5
Services	0.6	0.9	0.4	0.1	3.1
Nonfinancial Corporate Business	2.4	3.1	2.1	1.0	0.5

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Table III c.

Capital Productivity
(Output per Unit Capital)
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	0.4%	0.8%	0.1%	-0.5%	-3.6%
Goods Producing Sector	0.6	1.1	0.8	-1.1	-5.8
Service Producing Sector	0.3	0.5	-0.1	0.1	-1.9
Farming	-0.1	-0.3	0.0	0.6	-0.5
Manufacturing	0.3	0.9	0.3	-1.5	-7.2
Food	1.4	2.1	2.5	-2.0	1.9
Tobacco	-0.9	-1.4	0.4	-1.3	0.4
Textiles	-0.3	-1.6	1.5	1.2	-5.3
Apparel	0.6	1.3	-0.9	0.6	-4.6
Lumber	1.9	5.2	-1.4	-3.0	-12.8
Furniture	0.8	2.0	-1.2	0.3	-6.9
Paper	0.9	1.5	2.5	-3.1	-4.5
Printing & Publishing	0.6	2.6	-1.7	-2.1	0.2
Chemicals	1.7	2.2	3.1	-1.2	-5.3
Petroleum	0.5	1.5	0.9	-2.9	-8.1
Rubber	0.6	1.3	1.0	-2.0	-3.7
Leather	-1.5	-0.7	-3.0	-1.8	-2.3
Stone, Clay & Glass	-0.5	-0.1	-0.1	-2.4	-11.8
Primary Metals	-2.0	-1.7	-1.0	-4.0	-16.6
Fabricated Metals	-1.2	-1.2	-0.3	-2.4	-9.9
Machinery, exc. Elec.	-0.9	-0.6	-1.1	-1.4	-4.0
Electrical Machinery	1.9	3.5	-0.7	0.9	-4.7
Transportation Equipment	0.9	2.8	-1.0	-1.9	-17.9
Instruments	1.2	1.8	0.4	0.7	-3.9
Miscellaneous Manufac.	0.4	-0.6	2.0	1.1	-5.9
Nonfarm Nonmanufacturing	0.1	0.5	-0.4	-0.3	-1.9
Mining	-1.3	-2.0	0.7	-2.3	3.5
Construction	-2.1	-1.7	-2.9	-2.3	-6.6
Transportation	0.3	-0.1	1.3	0.0	-0.4
Railroad	-0.6	-0.3	-1.1	-0.8	-1.1
Nonrail	-0.9	-1.4	0.0	-0.8	-0.7
Communications	0.8	0.3	0.8	2.5	-1.2
Public Utilities	1.0	2.8	-0.5	-2.0	0.3
Trade	-1.0	-0.9	-1.5	-0.9	-4.3
Finance & Insurance	-2.9	-1.4	-4.6	-4.9	-8.4
Real Estate	1.4	2.0	0.0	1.5	-0.9
Services	-0.8	-1.2	-1.0	0.6	1.1
Nonfinancial Corporate Business	0.5	0.9	-0.1	0.3	-1.1

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Table III d.

Capital - Labor Ratio
By Major Industries of the Economy
(Selected Periods, 1948 - 80)

	Average Annual Rates of Change				
	1948-79	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.2%	2.4%	2.3%	1.2%	3.5%
Goods Producing Sector	2.4	2.8	1.9	2.0	5.0
Service Producing Sector	1.7	1.8	2.3	0.6	2.2
Farming	5.0	5.7	5.0	3.0	4.2
Manufacturing	2.4	2.1	2.5	3.1	7.2
Food	1.6	1.1	2.0	2.7	2.5
Tobacco	4.7	5.5	3.7	4.0	2.7
Textiles	4.7	6.7	1.8	3.2	3.6
Apparel	2.1	0.6	4.2	3.6	1.7
Lumber	1.2	-0.9	3.2	4.7	12.7
Furniture	1.3	0.1	2.4	3.5	6.4
Paper	1.9	1.0	2.0	4.5	7.8
Printing & Publishing	0.9	-0.2	3.3	1.2	-0.3
Chemicals	2.5	2.5	1.7	3.7	4.3
Petroleum	3.1	4.0	2.4	1.8	14.5
Rubber	1.2	1.1	1.2	2.2	8.2
Leather	3.0	1.9	5.3	3.4	5.6
Stone, Clay & Glass	2.4	2.7	1.3	3.3	9.9
Primary Metals	3.0	3.2	2.5	2.8	15.1
Fabricated Metals	3.0	3.4	1.8	3.7	8.6
Machinery, exc. Elec.	2.6	2.4	3.1	2.8	4.8
Electrical Machinery	2.1	0.9	4.2	2.9	4.9
Transportation Equipment	2.1	0.8	4.2	3.0	18.2
Instruments	1.9	2.0	2.7	0.6	1.8
Miscellaneous Manufac.	2.6	3.5	2.0	1.1	9.6
Nonfarm Nonmanufacturing	1.7	1.9	2.2	0.5	1.9
Mining	3.3	6.3	1.7	-3.0	-3.2
Construction	2.7	4.3	2.0	-0.8	-1.4
Transportation	1.9	2.4	1.3	1.2	5.4
Railroad	3.9	5.1	2.9	2.0	7.5
Nonrail	2.4	2.2	3.2	2.1	5.0
Communications	5.0	6.2	3.9	3.2	1.4
Public Utilities	3.8	4.0	4.3	2.7	1.1
Trade	3.6	4.0	4.4	1.5	4.2
Finance & Insurance	4.0	2.8	6.1	5.0	5.8
Real Estate	-0.9	-0.7	0.1	-2.9	-1.6
Services	1.5	2.1	1.5	-0.5	0.2
Nonfinancial Corporate Business	1.9	2.2	2.2	0.7	1.6

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Table III e.
Multiple-Input Productivity

SPECIAL INDUSTRY ESTIMATES

(Selected Periods,1958-80)

1. S.I.C. 331 - BLAST FURNACE, BASIC STEEL PRODUCTS

	Average Annual Rates of Change				
	1958-79	1958-65	1965-73	1973-79	1979-80
Output	1.9	6.1	1.1	-1.7	-17.6
Labor Hours	0.1	2.4	-0.9	-1.3	-0.8
Capital Input*	1.1	1.3	1.7	0.1	-1.3
Multi-Input Productivity	1.3	4.2	0.7	-1.3	-15.9
Output per Unit Labor	1.9	3.6	2.0	-0.4	-17.0
Output per Unit Capital	0.8	4.7	-0.6	-1.7	-16.5
Capital-Labor Ratio	1.0	-1.0	2.6	1.3	-0.5

2. S.I.C. 367 - ELECTRONIC COMPONENTS

	Average Annual Rates of Change				
	1958-79	1958-65	1965-73	1973-79	1979-80
Output	10.9	13.3	9.9	9.5	3.0
Labor Hours	5.1	8.4	3.6	3.3	5.3
Capital Input*	9.6	12.3	9.4	6.8	8.1
Multi-Input Productivity	4.1	3.6	4.4	4.4	-3.5
Output per Unit Labor	5.5	4.4	6.2	6.0	-2.3
Output per Unit Capital	1.2	0.9	0.5	2.6	-4.7
Capital-Labor Ratio	4.2	3.5	5.6	3.3	2.7

*Capital not necessarily consistent with 2-digit S.I.C. code industry estimates.
Sources: Dept. of Commerce; Dept. of Labor

TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.2	80.9	41.5	68.3	54.5	46.0	89.8	51.2
1949	36.5	78.3	42.2	66.7	54.7	46.7	86.6	53.9
1950	39.9	79.2	43.6	67.8	58.8	50.3	91.5	55.0
1951	42.2	81.5	45.0	69.8	60.4	51.7	93.6	55.3
1952	43.6	81.6	46.2	70.2	62.0	53.4	94.4	56.6
1953	45.4	82.4	47.2	71.1	63.9	55.1	96.3	57.3
1954	44.6	79.7	48.2	69.6	64.1	56.0	92.6	60.5
1955	48.2	82.7	49.9	72.2	66.7	58.2	96.5	60.4
1956	49.4	84.0	51.4	73.5	67.2	58.8	96.1	61.2
1957	49.9	82.7	52.9	73.1	68.2	60.3	94.4	63.9
1958	49.1	79.0	53.9	70.9	69.3	62.2	91.2	68.2
1959	51.8	82.1	55.4	73.5	70.5	63.1	93.6	67.5
1960	53.6	82.3	56.8	74.1	72.3	65.1	94.2	69.1
1961	54.5	81.0	58.2	73.7	73.9	67.2	93.6	71.9
1962	57.5	82.3	60.0	75.1	76.5	69.8	95.8	72.9
1963	60.0	82.8	61.8	76.1	78.9	72.4	97.1	74.6
1964	63.6	84.2	64.0	77.7	81.8	75.5	99.4	76.0
1965	67.9	86.8	66.5	80.3	84.6	78.2	102.1	76.6
1966	71.6	88.9	69.4	82.6	86.7	80.6	103.2	78.1
1967	73.2	88.8	72.1	83.4	87.8	82.4	101.6	81.1
1968	76.9	90.3	74.8	85.4	90.2	85.2	102.9	82.8
1969	79.2	92.7	77.8	87.9	90.0	85.4	101.8	83.9
1970	78.5	91.2	80.3	87.7	89.6	86.1	97.8	88.0
1971	80.9	90.7	82.7	88.1	91.8	89.2	97.7	91.3
1972	86.2	93.4	85.6	90.9	94.9	92.4	100.8	91.7
1973	92.0	97.0	89.2	94.5	97.3	94.8	103.1	92.0
1974	90.2	97.4	92.3	95.7	94.3	92.7	97.8	94.7
1975	88.5	93.4	94.2	93.6	94.5	94.8	94.0	100.9
1976	94.1	96.1	96.8	96.3	97.7	97.9	97.2	100.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.7	104.9	103.7	104.5	100.2	99.8	101.0	98.8
1979	107.7	108.4	107.3	108.0	99.7	99.4	100.3	99.1
1980	106.8	107.8	110.5	108.6	98.3	99.1	96.7	102.5

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	41.1	104.5	49.4	86.2	47.7	39.3	83.3	47.3
1949	39.3	98.6	49.9	82.7	47.4	39.8	78.7	50.6
1950	44.0	100.6	51.7	84.7	52.0	43.8	85.2	51.4
1951	48.1	104.2	54.1	88.0	54.6	46.1	88.8	52.0
1952	49.5	103.7	55.8	88.3	56.1	47.8	88.7	53.8
1953	52.4	104.3	57.0	89.2	58.8	50.3	91.9	54.7
1954	50.1	97.6	58.0	85.3	58.7	51.3	86.5	59.4
1955	54.7	102.0	60.1	89.0	61.5	53.6	91.0	59.0
1956	55.7	102.5	62.0	90.1	61.8	54.3	89.8	60.5
1957	55.7	99.2	63.5	88.6	62.9	56.2	87.7	64.1
1958	52.7	91.7	64.3	84.1	62.7	57.5	82.1	70.1
1959	57.3	96.1	65.8	87.5	65.5	59.7	87.1	68.5
1960	58.0	94.8	66.9	86.9	66.7	61.1	86.7	70.6
1961	58.1	91.9	67.8	85.2	68.2	63.2	85.7	73.8
1962	61.9	93.8	69.2	86.9	71.2	65.9	89.5	73.7
1963	66.0	93.9	70.5	87.4	75.6	70.3	93.7	75.0
1964	69.8	94.6	72.2	88.4	78.9	73.7	96.6	76.3
1965	75.1	98.2	74.3	91.6	82.0	76.5	101.1	75.6
1966	79.1	101.3	77.1	94.6	83.6	78.1	102.5	76.1
1967	79.1	100.0	79.8	94.4	83.7	79.1	99.1	79.8
1968	83.0	100.8	81.8	95.6	86.8	82.3	101.4	81.2
1969	85.0	102.4	83.9	97.4	87.3	83.0	101.3	81.9
1970	81.4	97.2	85.4	94.0	86.6	83.7	95.3	87.9
1971	83.9	94.7	86.5	92.5	90.8	88.7	97.1	91.4
1972	90.0	98.4	88.0	95.5	94.2	91.5	102.3	89.4
1973	97.5	102.8	90.5	99.4	98.1	94.9	107.8	88.1
1974	93.0	101.5	93.5	99.3	93.6	91.6	99.5	92.1
1975	87.3	92.7	95.0	93.3	93.5	94.1	91.9	102.5
1976	94.3	95.9	97.2	96.3	97.9	98.2	96.9	101.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.0	105.2	103.4	104.7	100.3	99.8	101.5	98.3
1979	108.0	107.9	107.2	107.7	100.2	100.0	100.7	99.3
1980	103.4	104.6	109.1	105.8	97.8	98.9	94.8	104.3

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	34.5	63.9	37.4	54.2	63.6	54.0	92.2	58.5
1949	34.6	63.5	38.2	54.2	63.8	54.4	90.6	60.1
1950	36.9	63.7	39.4	54.7	67.5	58.0	93.7	61.9
1951	38.0	65.0	40.3	55.9	67.9	58.4	94.2	62.0
1952	39.3	65.5	41.2	56.5	69.6	60.0	95.6	62.8
1953	40.5	66.6	42.1	57.5	70.4	60.8	96.1	63.3
1954	40.7	66.7	43.2	58.0	70.3	61.1	94.4	64.7
1955	43.5	68.7	44.6	59.8	72.8	63.3	97.5	65.0
1956	45.0	70.5	45.9	61.4	73.3	63.8	97.9	65.2
1957	45.8	70.8	47.3	62.0	73.8	64.7	96.7	66.9
1958	46.5	69.8	48.5	61.7	75.4	66.7	96.0	69.5
1959	48.0	72.0	50.0	63.6	75.4	66.6	95.9	69.5
1960	50.4	73.2	51.6	65.0	77.6	68.9	97.6	70.6
1961	51.9	73.1	53.2	65.6	79.1	71.0	97.4	72.8
1962	54.4	74.0	55.3	66.9	81.3	73.5	98.4	74.7
1963	55.7	74.8	57.3	68.2	81.7	74.5	97.1	76.7
1964	59.2	76.6	59.7	70.2	84.3	77.3	99.1	77.9
1965	62.8	78.6	62.5	72.5	86.7	79.9	100.5	79.5
1966	66.4	79.8	65.4	74.4	89.2	83.1	101.4	82.0
1967	69.1	80.7	68.1	75.9	91.0	85.6	101.5	84.3
1968	72.7	82.7	71.2	78.4	92.7	87.8	102.1	86.0
1969	75.0	85.7	74.6	81.5	92.0	87.5	100.5	87.1
1970	76.5	86.8	77.6	83.3	91.8	88.1	98.5	89.4
1971	78.7	87.7	80.8	85.1	92.5	89.7	97.4	92.1
1972	83.5	89.7	84.3	87.7	95.3	93.1	99.1	94.0
1973	88.0	92.8	88.5	91.1	96.5	94.8	99.4	95.4
1974	88.3	94.4	91.6	93.3	94.6	93.5	96.3	97.1
1975	89.4	93.8	93.7	93.8	95.3	95.2	95.3	99.9
1976	94.0	96.2	96.6	96.4	97.5	97.7	97.3	100.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	104.7	103.8	104.4	100.1	99.8	100.7	99.1
1979	107.5	108.7	107.4	108.2	99.3	98.9	100.1	98.8
1980	109.2	110.0	111.2	110.5	98.8	99.2	98.2	101.0

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	28.8	60.2	32.6	52.3	55.0	47.8	88.2	54.2
1949	27.5	56.6	33.3	50.0	55.1	48.6	82.7	58.8
1950	30.9	59.3	34.6	52.3	59.2	52.2	89.5	58.3
1951	33.8	63.0	36.3	55.4	61.0	53.6	93.2	57.5
1952	34.4	63.9	37.5	56.4	61.0	53.9	91.9	58.7
1953	36.5	65.7	38.7	58.1	62.9	55.6	94.4	58.9
1954	35.4	62.1	39.6	55.8	63.5	57.1	89.5	63.8
1955	39.5	65.1	41.2	58.4	67.6	60.6	95.8	63.3
1956	40.5	66.6	42.9	59.9	67.6	60.9	94.5	64.4
1957	41.1	65.8	44.2	59.8	68.6	62.4	92.8	67.2
1958	39.2	62.9	44.9	57.9	67.7	62.4	87.4	71.4
1959	43.5	66.8	46.1	61.1	71.2	65.1	94.3	69.0
1960	44.9	67.6	47.4	62.0	72.3	66.3	94.6	70.1
1961	46.0	67.0	48.6	61.9	74.3	68.6	94.6	72.5
1962	50.0	69.6	51.3	64.6	77.5	71.8	97.6	73.6
1963	53.3	71.3	53.7	66.4	80.3	74.8	99.3	75.4
1964	57.0	73.6	56.7	68.9	82.7	77.5	100.6	77.1
1965	62.3	77.5	60.6	72.9	85.0	79.9	102.3	78.1
1966	66.4	81.8	66.4	77.6	85.6	81.2	100.1	81.1
1967	68.0	82.9	70.7	79.6	85.4	82.0	96.1	85.3
1968	72.4	85.5	74.5	82.6	87.7	84.8	97.2	87.2
1969	75.6	88.9	78.4	86.1	87.8	85.0	96.4	88.2
1970	75.0	87.9	81.1	86.1	87.1	85.4	92.5	92.3
1971	78.4	87.7	83.4	86.6	90.6	89.4	94.1	95.0
1972	84.9	92.2	86.8	90.7	93.5	92.1	97.8	94.2
1973	91.6	96.9	90.3	95.2	96.2	94.5	101.4	93.2
1974	88.5	97.1	92.5	95.9	92.4	91.3	95.8	95.3
1975	86.9	92.0	92.7	92.2	94.2	94.4	93.7	100.8
1976	93.3	95.8	95.8	95.8	97.4	97.4	97.4	100.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.8	105.3	103.9	104.9	100.8	100.4	101.8	98.6
1979	109.3	109.0	105.9	108.2	101.1	100.3	103.2	97.2
1980	108.5	107.7	106.3	107.3	101.1	100.8	102.1	98.7

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	75.7	312.2	72.9	206.7	36.6	24.3	103.8	23.4
1949	74.4	309.5	73.4	205.4	36.2	24.0	101.4	23.7
1950	78.5	286.4	75.4	193.3	40.6	27.4	104.1	26.3
1951	74.6	271.3	76.7	185.4	40.2	27.5	97.3	28.3
1952	76.5	258.1	78.0	178.6	42.8	29.6	98.0	30.2
1953	80.5	238.8	78.5	168.0	47.9	33.7	102.5	32.9
1954	82.4	232.0	79.3	164.5	50.1	35.5	103.9	34.2
1955	84.9	235.9	81.6	167.6	50.6	36.0	104.1	34.6
1956	83.7	224.6	82.1	161.5	51.8	37.3	102.0	36.5
1957	81.5	206.6	83.2	151.9	53.6	39.4	97.9	40.3
1958	85.1	191.6	83.9	143.8	59.2	44.4	101.4	43.8
1959	80.5	191.8	85.5	144.6	55.7	42.0	94.1	44.6
1960	85.0	185.0	86.4	141.0	60.3	46.0	98.4	46.7
1961	84.6	175.1	86.5	135.3	62.5	48.3	97.8	49.4
1962	84.2	169.7	87.1	132.5	63.6	49.6	96.7	51.3
1963	86.9	162.6	87.8	128.6	67.6	53.4	99.0	54.0
1964	84.8	153.8	88.7	123.8	68.5	55.2	95.7	57.7
1965	87.9	149.8	89.3	121.8	72.2	58.7	98.4	59.7
1966	83.0	135.7	89.8	113.8	72.9	61.2	92.4	66.2
1967	87.2	130.8	90.6	111.3	78.4	66.7	96.3	69.2
1968	85.5	128.0	91.2	109.9	77.8	66.8	93.7	71.3
1969	87.4	121.8	91.7	106.5	82.0	71.7	95.2	75.3
1970	92.1	113.5	92.6	102.8	89.5	81.2	99.5	81.6
1971	97.4	110.2	93.7	101.8	95.7	88.4	104.0	85.0
1972	95.2	111.4	94.1	102.6	92.8	85.5	101.2	84.5
1973	94.6	109.0	96.0	102.4	92.4	86.8	98.6	88.1
1974	95.3	109.1	97.0	103.0	92.6	87.3	98.2	88.9
1975	101.3	105.9	98.5	102.1	99.2	95.7	102.9	93.0
1976	96.7	101.1	99.2	100.1	96.6	95.7	97.6	98.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.7	101.7	101.8	101.8	98.0	98.1	97.9	100.2
1979	106.4	99.1	104.1	101.7	104.7	107.4	102.2	105.1
1980	107.8	96.8	106.0	101.5	106.2	111.3	101.7	109.5

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	35.9	79.4	39.2	68.5	52.3	45.1	91.5	49.3
1949	34.0	72.4	39.8	63.7	53.4	46.9	85.3	55.0
1950	38.7	78.2	41.3	68.3	56.7	49.5	93.6	52.9
1951	43.1	84.2	44.6	73.6	58.6	51.2	96.6	53.0
1952	44.5	85.4	46.5	75.0	59.4	52.1	95.8	54.4
1953	47.6	89.8	48.1	78.6	60.5	53.0	98.9	53.6
1954	44.2	82.1	48.9	73.3	60.3	53.8	90.4	59.6
1955	48.9	86.6	50.9	77.1	63.4	56.5	96.2	58.7
1956	49.3	87.9	53.3	78.8	62.6	56.1	92.5	60.6
1957	49.5	86.5	54.8	78.2	63.3	57.2	90.4	63.3
1958	45.3	79.4	55.2	73.3	61.8	57.0	82.0	69.5
1959	50.5	84.7	56.3	77.3	65.4	59.7	89.9	66.4
1960	50.7	84.4	57.1	77.4	65.6	60.1	88.8	67.7
1961	50.8	82.3	58.1	76.1	66.7	61.7	87.4	70.6
1962	55.1	85.6	59.5	78.9	69.9	64.4	92.6	69.5
1963	59.7	86.5	60.9	79.9	74.7	69.0	98.1	70.4
1964	64.0	88.4	62.7	81.8	78.2	72.4	102.0	71.0
1965	69.9	93.6	65.5	86.4	80.9	74.6	106.7	70.0
1966	75.2	99.7	69.9	92.1	81.7	75.4	107.7	70.0
1967	75.1	99.6	73.8	93.0	80.8	75.4	101.8	74.1
1968	79.2	101.4	76.6	95.1	83.2	78.1	103.4	75.5
1969	81.8	103.0	79.6	97.1	84.3	79.4	102.8	77.2
1970	77.1	97.3	81.5	93.3	82.6	79.2	94.6	83.7
1971	78.8	93.7	82.5	90.9	86.7	84.1	95.5	88.1
1972	86.3	97.8	84.6	94.4	91.4	88.3	102.1	86.5
1973	96.0	103.2	87.7	99.3	96.7	93.1	109.4	85.1
1974	92.0	101.2	92.1	98.9	93.0	90.9	99.9	91.0
1975	85.5	91.4	93.6	92.0	93.0	93.5	91.4	102.4
1976	93.7	95.9	96.5	96.1	97.5	97.7	97.1	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.4	104.4	104.1	104.3	101.0	100.9	101.2	99.6
1979	108.6	106.6	108.8	107.2	101.4	101.9	99.9	102.0
1980	103.7	102.2	111.8	104.6	99.1	101.4	92.7	109.4

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TABLE IV. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	36.2	64.9	37.2	55.6	65.1	55.7	97.1	57.4
1949	36.1	64.2	38.0	55.3	65.2	56.1	94.8	59.2
1950	38.7	64.7	39.3	56.0	69.1	59.9	98.5	60.8
1951	40.3	66.6	40.3	57.6	69.9	60.5	99.9	60.5
1952	41.7	67.1	41.2	58.3	71.5	62.0	101.1	61.4
1953	42.9	67.8	42.2	59.1	72.6	63.2	101.6	62.2
1954	43.2	67.6	43.3	59.3	72.8	63.8	99.7	64.0
1955	46.2	69.9	44.9	61.3	75.3	66.0	102.9	64.2
1956	47.9	72.1	46.2	63.2	75.9	66.5	103.7	64.2
1957	48.7	72.1	47.7	63.7	76.5	67.5	102.0	66.2
1958	49.4	70.7	49.0	63.1	78.3	69.9	100.9	69.3
1959	51.2	73.0	50.6	65.2	78.5	70.1	101.2	69.3
1960	53.5	73.9	52.3	66.3	80.7	72.4	102.4	70.7
1961	54.9	73.6	53.9	66.7	82.3	74.6	101.8	73.2
1962	57.4	74.5	56.0	68.0	84.4	77.0	102.6	75.1
1963	58.9	75.4	58.1	69.3	85.0	78.1	101.5	77.0
1964	62.4	77.3	60.5	71.4	87.5	80.8	103.2	78.3
1965	66.1	79.2	63.2	73.6	89.7	83.4	104.5	79.8
1966	69.4	80.6	66.2	75.5	91.8	86.1	104.8	82.2
1967	71.7	81.0	68.8	76.7	93.5	88.5	104.2	84.9
1968	75.5	82.6	71.8	78.9	95.7	91.3	105.1	86.9
1969	77.5	86.0	75.2	82.2	94.3	90.1	103.1	87.4
1970	78.6	86.8	78.1	83.7	93.8	90.5	100.7	89.9
1971	81.1	87.9	81.1	85.5	94.9	92.3	100.0	92.3
1972	85.8	90.1	84.5	88.1	97.3	95.2	101.5	93.8
1973	89.9	93.3	88.5	91.6	98.1	96.3	101.5	94.8
1974	89.2	94.8	91.6	93.7	95.2	94.0	97.4	96.6
1975	89.4	93.3	93.7	93.5	95.6	95.7	95.4	100.3
1976	94.2	95.8	96.5	96.1	98.0	98.3	97.6	100.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	105.4	103.8	104.9	99.8	99.3	100.8	98.5
1979	107.3	109.8	107.5	109.0	98.4	97.7	99.8	97.9
1980	108.3	111.1	110.8	111.0	97.5	97.5	97.7	99.8

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

1. Mining

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	57.1	112.5	38.7	80.2	71.2	50.8	147.6	34.4
1949	50.0	97.2	39.4	71.9	69.6	51.5	126.9	40.6
1950	56.0	98.3	41.4	73.4	76.4	57.0	135.3	42.1
1951	61.2	102.5	43.0	76.4	80.1	59.7	142.3	42.0
1952	60.3	99.6	44.9	75.5	79.8	60.6	134.4	45.1
1953	61.7	96.8	46.4	74.6	82.6	63.7	132.8	48.0
1954	59.6	88.5	48.7	70.9	84.1	67.4	122.4	55.1
1955	66.5	93.3	51.6	74.8	88.9	71.3	129.0	55.3
1956	70.1	97.0	54.1	78.0	89.9	72.3	129.7	55.7
1957	70.0	96.2	56.7	78.7	89.0	72.8	123.4	59.0
1958	64.3	85.0	58.3	73.2	87.8	75.6	109.3	69.2
1959	67.2	86.5	61.4	75.2	89.4	77.7	109.4	71.0
1960	68.2	84.1	63.6	74.8	91.2	81.1	107.2	75.6
1961	68.5	80.0	66.2	73.6	93.1	85.7	103.6	82.7
1962	70.5	78.2	68.4	73.6	95.8	90.1	103.1	87.5
1963	73.5	76.3	70.1	73.3	100.3	96.4	104.9	91.9
1964	76.5	77.1	73.2	75.1	101.9	99.2	104.6	94.8
1965	79.5	76.9	75.3	75.9	104.7	103.4	105.6	97.9
1966	83.6	77.2	77.7	77.1	108.4	108.4	107.6	100.7
1967	85.8	74.6	79.5	76.5	112.2	115.0	107.9	106.6
1968	89.0	73.3	81.5	76.6	116.2	121.5	109.3	111.1
1969	92.2	75.3	83.6	78.7	117.1	122.4	110.3	110.9
1970	95.7	74.8	84.7	78.9	121.3	127.9	112.9	113.2
1971	93.2	72.8	85.3	77.9	119.7	128.0	109.3	117.1
1972	96.1	74.9	85.8	79.3	121.1	128.3	112.0	114.5
1973	97.0	77.4	86.9	81.3	119.4	125.4	111.6	112.4
1974	97.3	83.2	88.5	85.4	113.9	116.9	109.9	106.4
1975	95.4	88.8	91.2	89.8	106.2	107.4	104.5	102.7
1976	96.6	94.5	95.0	94.7	102.0	102.2	101.6	100.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.9	104.7	104.8	104.7	99.2	99.2	99.1	100.1
1979	106.3	116.8	109.2	113.7	93.5	91.0	97.3	93.5
1980	114.4	125.5	113.6	120.7	94.8	91.1	100.7	90.5

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

2. Contract Construction

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	47.9	64.5	25.0	62.0	77.3	74.3	191.9	38.7
1949	47.9	63.9	25.1	61.4	78.0	75.0	191.1	39.2
1950	52.8	66.7	27.7	64.2	82.3	79.2	190.5	41.6
1951	58.7	73.1	30.6	70.4	83.4	80.3	192.1	41.8
1952	61.1	74.7	32.3	72.0	84.9	81.8	189.4	43.2
1953	63.0	73.0	31.8	70.4	89.4	86.2	198.0	43.5
1954	65.0	71.7	33.1	69.3	93.7	90.5	196.2	46.1
1955	68.9	75.7	35.0	73.2	94.2	91.0	196.9	46.2
1956	73.8	80.8	37.8	78.1	94.5	91.4	195.2	46.8
1957	74.0	78.6	41.3	76.3	97.0	94.1	179.1	52.6
1958	76.1	75.5	43.2	73.6	103.5	100.8	176.4	57.2
1959	82.2	80.0	46.9	78.0	105.3	102.7	175.3	58.6
1960	83.3	78.2	49.5	76.5	109.0	106.6	168.4	63.3
1961	84.3	77.2	52.6	75.7	111.4	109.2	160.4	68.1
1962	87.5	78.8	56.0	77.3	113.1	111.1	156.3	71.1
1963	90.2	80.9	60.0	79.6	113.3	111.4	150.2	74.2
1964	94.2	83.2	64.0	81.9	115.0	113.3	147.2	77.0
1965	98.3	85.7	68.2	84.6	116.2	114.7	144.2	79.5
1966	98.6	88.0	71.4	86.9	113.5	112.1	138.2	81.1
1967	96.5	84.5	75.3	83.8	115.2	114.2	128.1	89.1
1968	102.7	83.6	77.9	83.1	123.7	122.9	131.8	93.2
1969	100.8	91.0	81.2	90.3	111.7	110.7	124.2	89.1
1970	96.5	89.4	83.0	88.9	108.6	108.0	116.3	92.8
1971	104.7	92.2	86.2	91.8	114.1	113.5	121.5	93.4
1972	107.3	96.3	91.4	95.9	111.8	111.3	117.4	94.9
1973	108.7	101.6	95.0	101.1	107.5	106.9	114.4	93.5
1974	96.3	101.0	98.5	100.8	95.5	95.4	97.8	97.5
1975	87.3	89.8	97.3	90.4	96.6	97.2	89.7	108.4
1976	95.4	92.4	97.4	92.8	102.7	103.2	97.9	105.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	106.3	111.6	103.1	111.3	95.5	95.3	103.1	92.4
1979	105.2	118.6	105.6	118.0	89.2	88.7	99.7	89.0
1980	95.8	117.2	102.9	116.5	82.2	81.7	93.1	87.8

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3. Total Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	59.7	115.7	62.4	105.1	56.8	51.6	95.7	53.9
1949	52.2	105.7	63.7	97.3	53.6	49.4	82.0	60.2
1950	54.6	104.7	64.7	96.8	56.5	52.2	84.4	61.8
1951	59.5	109.1	66.1	100.6	59.2	54.5	90.0	60.6
1952	57.6	106.6	67.3	98.8	58.3	54.0	85.5	63.2
1953	57.1	106.1	68.3	98.6	57.9	53.8	83.6	64.4
1954	53.4	99.0	68.7	93.0	57.5	54.0	77.8	69.4
1955	58.2	101.5	69.1	95.1	61.2	57.3	84.2	68.1
1956	60.3	102.4	69.9	95.9	62.9	58.9	86.3	68.3
1957	59.9	99.9	71.1	94.2	63.6	60.0	84.2	71.2
1958	55.5	91.6	71.2	87.6	63.4	60.6	78.0	77.7
1959	58.6	94.3	72.1	90.0	65.1	62.1	81.3	76.4
1960	59.3	93.3	73.0	89.3	66.4	63.6	81.3	78.3
1961	59.0	90.7	73.4	87.3	67.5	65.0	80.4	80.9
1962	61.3	91.1	73.9	87.7	69.9	67.3	82.9	81.1
1963	64.6	91.0	74.2	87.7	73.7	71.0	87.1	81.5
1964	66.6	92.3	75.4	89.0	74.3	72.1	88.4	81.6
1965	72.5	95.1	77.0	91.6	79.2	76.2	94.2	80.9
1966	78.6	97.2	79.2	93.7	83.9	80.8	99.3	81.4
1967	78.3	90.7	81.2	88.8	88.2	86.4	96.5	89.5
1968	83.9	97.4	83.9	94.7	88.6	86.1	100.0	86.1
1969	84.9	99.2	85.9	96.6	87.9	85.6	98.8	86.6
1970	83.5	97.8	87.5	95.8	87.2	85.3	95.4	89.5
1971	83.0	95.6	88.3	94.1	88.2	86.8	93.9	92.4
1972	89.2	97.7	88.1	95.8	93.2	91.3	101.3	90.2
1973	94.6	100.9	90.7	98.8	95.8	93.8	104.3	89.9
1974	96.9	99.8	92.8	98.4	98.5	97.1	104.4	93.0
1975	90.4	94.2	95.6	94.5	95.7	96.0	94.5	101.5
1976	94.9	96.3	97.9	96.7	98.2	98.5	96.9	101.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.0	105.1	102.3	104.5	102.4	101.8	104.6	97.4
1979	109.4	108.9	105.1	108.2	101.1	100.4	104.1	96.5
1980	110.8	105.1	106.9	105.5	105.0	105.4	103.6	101.7

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3a. Railroad Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	113.4	295.8	90.4	250.6	45.2	38.3	125.4	30.6
1949	94.2	252.2	91.9	217.0	43.4	37.3	102.4	36.5
1950	102.4	239.6	92.7	207.4	49.4	42.7	110.5	38.7
1951	115.2	250.8	94.0	216.5	53.2	45.9	122.5	37.5
1952	110.3	239.9	95.1	208.2	53.0	46.0	115.9	39.7
1953	107.3	236.0	95.9	205.3	52.3	45.5	112.0	40.6
1954	96.9	209.3	95.9	184.7	52.5	46.3	101.0	45.8
1955	107.2	213.2	95.9	187.7	57.1	50.3	111.8	45.0
1956	109.8	209.5	96.3	184.9	59.4	52.4	113.9	46.0
1957	103.4	197.4	97.0	175.6	58.9	52.4	106.6	49.1
1958	91.9	168.2	96.4	152.7	60.2	54.6	95.3	57.3
1959	96.1	163.6	96.1	149.1	64.5	58.8	100.1	58.7
1960	95.0	155.9	96.6	143.2	66.4	61.0	98.4	62.0
1961	94.2	145.9	96.2	135.2	69.7	64.5	97.8	66.0
1962	97.7	143.3	95.5	132.9	73.5	68.2	102.3	66.6
1963	102.6	139.7	95.1	130.0	78.9	73.5	107.9	68.1
1964	107.1	138.8	95.7	129.4	82.7	77.2	111.8	69.0
1965	115.7	135.3	96.3	126.8	91.2	85.5	120.1	71.2
1966	123.7	133.0	97.6	125.3	98.7	93.0	126.7	73.4
1967	117.2	126.0	98.0	119.8	97.8	93.0	119.5	77.8
1968	115.0	122.4	97.8	116.9	98.3	93.9	117.6	79.9
1969	118.2	119.8	98.2	114.9	102.8	98.7	120.4	82.0
1970	112.9	116.9	97.9	112.6	100.2	96.6	115.3	83.8
1971	100.4	109.1	97.2	106.5	94.3	92.0	103.3	89.1
1972	101.3	106.4	96.4	104.2	97.3	95.2	105.1	90.6
1973	105.5	107.4	95.8	104.8	100.7	98.3	110.2	89.2
1974	108.4	108.3	95.5	105.4	102.8	100.1	113.5	88.2
1975	95.2	100.1	97.2	99.5	95.7	95.1	97.9	97.1
1976	99.8	99.2	98.6	99.1	100.8	100.7	101.2	99.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	99.4	101.5	99.8	104.3	104.8	102.6	102.2
1979	108.3	102.9	103.3	102.9	105.2	105.2	104.9	100.3
1980	108.4	96.9	104.5	98.5	110.1	111.9	103.7	107.9

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

3b. Nonrail Transportation

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	46.3	72.9	33.6	65.6	70.5	63.5	137.6	46.1
1949	41.8	70.9	34.7	64.2	65.1	58.9	120.4	48.9
1950	42.7	72.7	36.0	65.9	64.9	58.8	118.6	49.6
1951	45.6	75.5	37.6	68.4	66.7	60.5	121.5	49.8
1952	44.4	74.9	38.8	68.2	65.1	59.3	114.4	51.8
1953	44.6	75.2	40.0	68.6	64.9	59.3	111.5	53.2
1954	42.6	72.7	40.7	66.7	63.8	58.6	104.6	56.0
1955	46.0	75.0	41.8	68.8	66.9	61.3	110.2	55.7
1956	48.0	76.9	42.9	70.5	68.1	62.5	112.1	55.7
1957	49.1	76.7	44.6	70.7	69.4	64.0	110.0	58.1
1958	46.5	73.5	45.4	68.1	68.2	63.3	102.4	61.8
1959	49.2	77.9	47.5	72.1	68.2	63.2	103.7	61.0
1960	50.4	78.4	48.8	72.8	69.2	64.3	103.3	62.3
1961	50.2	77.6	49.9	72.4	69.3	64.7	100.5	64.3
1962	52.3	78.7	51.9	73.6	71.0	66.4	100.8	65.8
1963	55.1	79.4	52.8	74.3	74.1	69.4	104.4	66.5
1964	56.5	81.3	54.5	76.2	74.1	69.5	103.7	67.0
1965	61.8	85.6	57.2	80.2	77.0	72.1	107.9	66.8
1966	67.4	88.7	60.3	83.3	80.8	75.9	111.6	68.0
1967	68.6	82.3	63.9	78.8	87.1	83.4	107.4	77.7
1968	76.1	91.5	69.6	87.3	87.2	83.2	109.3	76.1
1969	76.7	94.4	73.4	90.3	84.9	81.2	104.4	77.8
1970	76.1	93.3	76.9	90.1	84.5	81.6	99.0	82.4
1971	78.7	92.4	79.3	89.8	87.5	85.1	99.2	85.8
1972	86.2	95.6	79.6	92.5	93.2	90.1	108.3	83.3
1973	91.9	99.3	85.5	96.6	95.1	92.6	107.5	86.1
1974	94.1	97.8	90.1	96.3	97.6	96.2	104.4	92.1
1975	89.2	92.8	94.0	93.0	95.9	96.2	94.9	101.3
1976	93.6	95.7	97.2	96.0	97.6	97.9	96.3	101.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.7	106.2	103.1	105.6	102.0	101.4	104.5	97.1
1979	109.7	109.9	107.0	109.3	100.3	99.8	102.5	97.3
1980	111.4	107.1	109.4	107.5	103.6	104.0	101.8	102.1

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

4. Communications

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	13.7	74.8	16.6	51.7	26.6	18.4	82.5	22.2
1949	14.4	72.2	17.4	50.2	28.7	19.9	82.5	24.2
1950	15.1	69.4	18.1	48.5	31.1	21.8	83.6	26.0
1951	16.7	70.9	18.8	49.7	33.6	23.5	88.6	26.5
1952	17.7	72.4	20.0	50.9	34.8	24.4	88.6	27.6
1953	19.4	74.9	21.0	52.7	36.7	25.8	92.2	28.0
1954	19.8	73.9	22.1	52.3	37.8	26.8	89.5	29.9
1955	21.7	73.8	23.3	52.6	41.3	29.4	93.1	31.6
1956	23.0	76.0	25.1	54.3	42.4	30.3	91.8	33.0
1957	24.7	75.4	27.4	54.5	45.4	32.8	90.0	36.4
1958	25.6	70.9	29.2	52.0	49.2	36.0	87.7	41.1
1959	27.5	70.3	30.9	52.0	52.9	39.1	88.9	44.0
1960	29.1	71.1	33.2	53.4	54.5	41.0	87.8	46.6
1961	30.5	69.8	35.3	53.7	56.7	43.6	86.4	50.5
1962	32.7	70.3	37.8	55.1	59.4	46.5	86.6	53.7
1963	35.1	70.3	40.4	56.3	62.3	49.9	86.7	57.5
1964	37.4	72.7	43.4	58.9	63.5	51.4	86.1	59.7
1965	40.6	76.1	46.9	62.3	65.1	53.4	86.7	61.6
1966	44.4	79.9	50.5	66.0	67.2	55.5	87.8	63.3
1967	47.6	81.1	54.4	68.5	69.6	58.7	87.6	67.1
1968	51.6	82.9	58.2	71.1	72.5	62.2	88.5	70.2
1969	57.2	89.5	62.5	76.6	74.6	63.9	91.5	69.8
1970	62.6	94.1	67.5	81.5	76.8	66.5	92.7	71.7
1971	66.0	91.7	72.5	82.6	79.9	71.9	91.0	79.0
1972	71.5	96.2	77.6	87.4	81.9	74.3	92.2	80.7
1973	76.7	99.0	82.9	91.3	84.0	77.5	92.6	83.7
1974	79.7	100.4	88.3	94.7	84.2	79.4	90.2	88.0
1975	86.8	97.4	91.9	94.8	91.5	89.1	94.4	94.3
1976	93.2	96.8	95.4	96.1	97.0	96.3	97.7	98.6
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.7	105.3	106.0	105.6	103.8	104.1	103.4	100.7
1979	120.6	111.3	112.5	111.8	107.9	108.4	107.2	101.1
1980	125.3	115.4	118.2	116.7	107.3	108.6	105.9	102.5

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

5. Public Utilities

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	18.2	81.4	25.2	49.6	36.8	22.4	72.3	31.0
1949	20.2	81.8	26.8	50.5	40.0	24.7	75.3	32.8
1950	21.7	82.0	28.4	51.4	42.2	26.4	76.2	34.6
1951	25.1	81.9	30.0	52.0	48.2	30.7	83.7	36.6
1952	26.9	81.5	31.7	52.6	51.2	33.0	85.1	38.8
1953	28.9	82.0	33.5	53.7	53.8	35.3	86.2	40.9
1954	31.7	81.7	35.2	54.4	58.3	38.8	90.1	43.0
1955	33.5	82.2	36.7	55.3	60.6	40.8	91.2	44.7
1956	35.9	81.8	38.3	55.8	64.4	43.9	94.0	46.8
1957	38.1	82.6	40.1	57.0	66.8	46.1	94.9	48.6
1958	39.6	82.4	41.9	57.7	68.6	48.1	94.5	50.8
1959	43.3	82.9	43.3	58.6	73.8	52.2	100.0	52.2
1960	46.4	83.3	44.7	59.6	77.9	55.7	103.9	53.7
1961	48.9	82.9	46.0	60.3	81.1	59.0	106.3	55.5
1962	51.1	82.6	47.3	61.0	83.8	61.9	108.1	57.3
1963	53.8	83.8	48.6	62.3	86.4	64.1	110.5	58.0
1964	57.3	83.8	50.2	63.2	90.6	68.3	114.1	59.9
1965	60.1	86.0	52.1	65.2	92.2	69.9	115.5	60.5
1966	64.0	86.8	54.5	67.0	95.5	73.7	117.5	62.7
1967	67.3	88.4	57.4	69.4	96.9	76.1	117.1	65.0
1968	73.6	89.6	60.9	72.0	102.2	82.2	120.9	68.0
1969	78.4	92.5	64.8	75.5	103.8	84.7	121.1	70.0
1970	80.7	95.3	68.9	79.1	102.0	84.7	117.1	72.4
1971	86.4	94.6	73.6	81.7	105.7	91.3	117.4	77.8
1972	89.1	96.7	78.7	85.6	104.1	92.2	113.3	81.4
1973	93.5	99.3	84.0	89.9	103.9	94.1	111.3	84.5
1974	90.0	100.1	88.9	93.2	96.5	89.9	101.2	88.8
1975	96.1	97.7	92.3	94.4	101.8	98.3	104.1	94.4
1976	96.5	98.0	95.8	96.6	99.9	98.5	100.8	97.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	105.5	104.6	104.9	100.0	99.4	100.3	99.1
1979	107.8	110.4	109.3	109.7	98.3	97.6	98.7	99.0
1980	112.0	113.1	113.2	113.1	99.0	99.0	99.0	100.0

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

6. Trade

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	33.8	71.3	24.4	63.3	53.3	47.3	138.4	34.2
1949	34.6	71.7	25.2	63.8	54.2	48.2	137.3	35.1
1950	37.9	72.0	28.2	64.7	58.6	52.6	134.5	39.1
1951	38.2	73.4	29.5	66.1	57.9	52.1	129.8	40.2
1952	39.4	73.3	30.1	66.2	59.6	53.7	131.0	41.0
1953	40.7	74.1	31.1	67.0	60.7	54.9	130.7	42.0
1954	41.0	74.4	32.3	67.5	60.7	55.1	126.7	43.5
1955	44.7	76.3	35.4	69.7	64.1	58.6	126.1	46.5
1956	46.0	78.0	37.3	71.5	64.3	59.0	123.4	47.8
1957	46.8	77.9	38.7	71.8	65.1	60.0	120.9	49.6
1958	46.7	77.3	39.6	71.4	65.4	60.4	118.0	51.2
1959	50.0	80.0	41.8	74.1	67.4	62.5	119.5	52.3
1960	50.9	81.0	43.9	75.3	67.5	62.8	115.9	54.2
1961	51.4	80.5	45.0	75.0	68.5	63.8	114.3	55.9
1962	54.7	81.1	47.4	75.9	72.1	67.5	115.4	58.4
1963	56.8	80.6	49.9	75.9	74.8	70.4	113.9	61.9
1964	60.3	83.1	52.6	78.4	76.9	72.5	114.6	63.3
1965	64.2	85.3	56.5	80.8	79.4	75.3	113.6	66.3
1966	67.7	85.5	61.5	81.8	82.8	79.2	110.1	71.9
1967	69.4	84.7	64.2	81.5	85.1	81.9	108.0	75.8
1968	73.6	84.1	68.4	81.7	90.1	87.5	107.6	81.3
1969	75.2	91.9	72.7	88.9	84.6	81.8	103.4	79.1
1970	76.4	88.4	75.4	86.3	88.5	86.5	101.4	85.3
1971	80.3	89.8	79.4	88.2	91.1	89.4	101.2	88.3
1972	86.4	92.2	83.5	90.8	95.2	93.7	103.5	90.5
1973	91.5	94.5	88.6	93.6	97.8	96.8	103.2	93.8
1974	89.7	94.4	91.5	93.9	95.5	95.0	98.0	96.9
1975	90.8	94.3	91.0	93.8	96.8	96.3	99.8	96.5
1976	95.4	96.8	94.9	96.5	98.8	98.5	100.5	98.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.9	103.6	105.5	103.9	101.0	101.2	99.4	101.8
1979	107.5	106.1	109.0	106.5	100.9	101.3	98.6	102.8
1980	107.3	106.2	113.7	107.4	99.9	101.0	94.3	107.1

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

7. Finance and Insurance

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	31.1	43.8	13.7	38.3	81.2	70.9	227.2	31.2
1949	31.9	44.4	13.6	38.7	82.2	71.7	233.9	30.7
1950	33.7	45.5	13.6	39.7	85.1	74.1	247.3	30.0
1951	36.2	46.8	13.7	40.7	88.9	77.4	264.3	29.3
1952	37.8	48.6	14.2	42.2	89.4	77.8	266.7	29.2
1953	39.5	50.2	15.0	43.7	90.4	78.8	263.8	29.9
1954	41.1	52.1	14.9	45.3	90.8	78.9	276.1	28.6
1955	44.1	54.3	15.6	47.2	93.4	81.2	282.3	28.8
1956	47.0	55.3	16.3	48.1	97.6	85.0	288.0	29.5
1957	48.8	56.2	16.9	49.0	99.7	86.9	289.4	30.0
1958	49.0	57.8	17.9	50.4	97.1	84.7	273.9	30.9
1959	50.3	59.8	19.3	52.3	96.2	84.2	261.2	32.2
1960	53.1	61.8	20.6	54.3	97.8	85.8	257.2	33.4
1961	54.8	63.1	22.4	55.7	98.5	86.9	245.2	35.4
1962	56.8	65.1	24.4	57.7	98.4	87.3	232.7	37.5
1963	58.3	66.3	27.0	59.3	98.3	87.9	215.6	40.7
1964	60.5	68.6	32.1	62.2	97.3	88.3	188.3	46.9
1965	62.4	70.3	34.8	64.2	97.3	88.8	179.4	49.5
1966	64.9	71.1	37.0	65.3	99.4	91.3	175.4	52.1
1967	68.1	73.3	40.2	67.7	100.5	92.9	169.3	54.9
1968	72.7	76.8	42.5	71.1	102.3	94.6	170.9	55.3
1969	77.9	81.0	48.6	75.8	102.7	96.1	160.1	60.0
1970	79.8	82.7	52.9	77.9	102.5	96.6	150.8	64.1
1971	81.4	84.6	57.2	80.1	101.5	96.2	142.3	67.6
1972	84.3	87.1	64.3	83.4	101.1	96.8	131.1	73.8
1973	88.6	90.6	71.9	87.6	101.2	97.8	123.3	79.4
1974	92.5	93.0	78.7	90.7	101.9	99.4	117.5	84.6
1975	94.5	94.6	84.6	93.0	101.6	99.9	111.8	89.3
1976	95.6	96.4	91.6	95.6	99.9	99.1	104.4	95.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.6	107.0	109.2	107.2	97.6	97.8	95.8	102.0
1979	108.5	112.0	119.2	113.1	96.0	96.9	91.0	106.4
1980	108.9	116.0	130.6	118.2	92.1	93.9	83.3	112.6

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

8. Real Estate

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	39.4	52.8	61.2	60.3	65.3	74.6	64.3	115.9
1949	41.4	53.6	61.5	60.6	68.3	77.3	67.3	114.9
1950	43.7	54.3	62.1	61.2	71.4	80.6	70.4	114.4
1951	43.3	55.0	62.3	61.5	70.4	78.8	69.5	113.4
1952	45.2	55.9	62.5	61.7	73.3	80.8	72.4	111.7
1953	45.4	57.7	62.7	62.1	73.1	78.7	72.4	108.7
1954	46.3	59.6	63.4	63.0	73.5	77.6	73.0	106.4
1955	47.7	61.7	64.4	64.1	74.5	77.4	74.2	104.3
1956	48.6	62.5	64.9	64.6	75.1	77.7	74.8	103.8
1957	50.1	63.8	65.7	65.5	76.5	78.6	76.3	103.0
1958	52.3	65.4	66.2	66.1	79.1	79.9	79.0	101.2
1959	55.5	66.7	67.1	67.1	82.8	83.2	82.7	100.6
1960	55.9	67.0	68.2	68.1	82.1	83.4	82.0	101.7
1961	58.1	66.2	69.5	69.2	83.9	87.8	83.7	104.9
1962	61.6	67.6	71.1	70.9	86.9	91.2	86.6	105.3
1963	62.3	73.3	73.0	73.0	85.2	84.9	85.3	99.6
1964	64.8	74.5	74.5	74.5	87.0	87.0	87.0	100.0
1965	68.5	74.5	76.7	76.5	89.5	91.9	89.3	102.9
1966	70.3	72.1	78.6	78.1	89.9	97.4	89.4	109.0
1967	71.5	73.1	80.1	79.6	89.8	97.8	89.2	109.6
1968	73.4	72.8	81.6	81.0	90.6	100.8	89.9	112.1
1969	75.1	77.7	83.5	83.1	90.4	96.7	89.9	107.5
1970	74.9	79.1	85.6	85.1	88.0	94.7	87.5	108.2
1971	80.0	84.1	88.3	87.9	90.9	95.1	90.6	104.9
1972	82.9	88.3	91.2	91.0	91.1	94.0	90.9	103.3
1973	84.5	91.4	94.6	94.3	89.6	92.5	89.4	103.5
1974	86.6	92.5	96.1	95.8	90.4	93.7	90.2	103.9
1975	85.4	91.4	97.1	96.7	88.4	93.5	88.0	106.3
1976	89.9	93.7	98.3	98.0	91.7	96.0	91.4	105.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.2	110.9	101.9	102.9	99.3	92.1	100.3	91.9
1979	101.5	119.8	103.8	105.4	96.4	84.8	97.8	86.7
1980	101.9	123.3	105.2	106.9	95.3	82.6	96.9	85.3

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TABLE V. MAJOR NONFARM NONMANUFACTURING INDUSTRIES

9. Services

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	35.4	44.5	27.6	39.1	90.5	79.4	128.1	62.0
1949	35.4	45.3	28.5	39.9	88.7	78.0	124.3	62.8
1950	36.9	45.5	29.5	40.3	91.7	81.2	124.9	65.0
1951	37.4	46.3	30.7	41.2	90.7	80.7	121.6	66.4
1952	39.8	48.0	31.8	42.6	93.3	82.9	125.2	66.2
1953	41.2	49.5	33.1	44.1	93.3	83.1	124.5	66.8
1954	41.3	50.6	34.3	45.2	91.3	81.6	120.3	67.8
1955	42.9	52.9	36.0	47.3	90.7	81.1	119.2	68.0
1956	43.8	55.5	37.7	49.6	88.4	79.0	116.2	68.0
1957	44.0	56.8	39.5	51.0	86.2	77.4	111.4	69.5
1958	47.2	56.4	41.2	51.3	92.0	83.6	114.4	73.1
1959	43.8	58.2	43.2	53.0	82.6	75.3	101.2	74.4
1960	50.1	60.1	45.4	55.0	91.1	83.4	110.4	75.5
1961	53.0	61.1	47.8	56.5	93.9	86.8	110.9	78.3
1962	54.2	62.3	50.6	58.3	93.0	86.9	107.1	81.2
1963	53.4	64.7	53.3	60.8	87.8	82.5	100.1	82.4
1964	58.6	65.7	56.5	62.5	93.7	89.2	103.7	86.0
1965	61.7	67.2	59.7	64.6	95.4	91.8	103.3	88.8
1966	65.6	69.9	63.1	67.6	97.1	93.9	103.9	90.4
1967	71.2	74.7	66.4	71.8	99.1	95.3	107.3	88.8
1968	72.8	79.1	70.3	76.1	95.6	92.0	103.4	89.0
1969	74.4	74.5	74.3	74.4	99.9	99.8	100.0	99.8
1970	76.5	82.2	77.7	80.8	94.6	93.0	98.5	94.4
1971	75.0	83.1	80.7	82.3	91.0	90.2	92.9	97.1
1972	79.3	84.0	84.1	84.0	94.4	94.4	94.2	100.2
1973	83.6	88.0	87.9	88.0	95.0	95.0	95.1	99.9
1974	84.3	92.6	91.2	92.2	91.5	91.1	92.5	98.5
1975	85.9	92.5	93.9	92.9	92.4	92.9	91.5	101.5
1976	92.5	95.3	96.8	95.8	96.5	97.0	95.5	101.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.6	105.1	103.7	104.8	97.9	97.6	99.0	98.7
1979	105.4	110.2	107.1	109.4	96.3	95.6	98.4	97.2
1980	109.8	113.3	110.4	112.6	97.5	96.9	99.4	97.4

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TABLE VI. MANUFACTURING INDUSTRIES

1. Food

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	46.4	113.3	71.7	101.9	45.5	40.9	64.7	63.3
1949	45.2	110.8	72.6	100.4	45.0	40.8	62.3	65.5
1950	48.3	110.6	74.1	100.8	47.9	43.7	65.2	67.0
1951	48.9	112.9	77.1	103.3	47.3	43.3	63.5	68.2
1952	51.6	112.5	77.2	103.1	50.1	45.9	66.9	68.7
1953	54.7	112.2	77.1	102.8	53.2	48.7	71.0	68.7
1954	54.1	110.7	76.8	101.7	53.2	48.8	70.4	69.4
1955	55.3	111.1	78.2	102.4	54.0	49.8	70.8	70.4
1956	57.8	111.6	79.4	103.1	56.1	51.8	72.8	71.1
1957	59.9	108.5	79.3	100.9	59.3	55.2	75.5	73.1
1958	60.3	106.8	78.8	99.6	60.5	56.5	76.5	73.8
1959	61.1	107.6	79.6	100.4	60.8	56.7	76.7	74.0
1960	62.3	107.5	78.8	100.1	62.2	58.0	79.1	73.3
1961	62.9	106.7	79.2	99.7	63.1	58.9	79.4	74.2
1962	65.5	105.8	80.3	99.3	65.9	61.9	81.6	75.9
1963	70.1	105.3	80.8	99.1	70.8	66.6	86.8	76.7
1964	71.0	105.1	81.3	99.1	71.7	67.6	87.4	77.3
1965	74.2	106.3	80.8	99.8	74.3	69.7	91.7	76.0
1966	78.3	107.3	82.5	101.0	77.5	73.0	94.8	76.9
1967	77.1	107.6	84.9	101.9	75.6	71.6	90.8	78.8
1968	78.1	107.1	86.2	101.9	76.6	72.9	90.6	80.5
1969	81.6	107.6	86.8	102.4	79.6	75.8	93.9	80.7
1970	82.7	106.5	88.1	101.9	81.2	77.7	94.0	82.7
1971	86.0	104.3	89.5	100.6	85.5	82.5	96.2	85.8
1972	91.2	103.3	90.2	100.0	91.2	88.3	101.1	87.4
1973	101.2	101.5	90.5	98.7	102.5	99.8	111.8	89.2
1974	95.0	101.1	92.3	98.9	96.0	94.0	102.9	91.3
1975	95.6	98.1	95.1	97.4	98.2	97.4	100.5	96.9
1976	99.6	100.2	98.2	99.7	99.9	99.4	101.4	97.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	99.9	100.1	102.2	100.7	99.3	99.8	97.8	102.1
1979	105.0	101.0	105.7	102.2	102.7	103.9	99.3	104.7
1980	106.9	98.5	105.6	100.3	106.6	108.6	101.2	107.3

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TABLE VI. MANUFACTURING INDUSTRIES

2. Tobacco

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	54.4	163.6	40.4	94.3	57.7	33.3	134.6	24.7
1949	58.3	152.9	40.3	89.2	65.4	38.2	144.9	26.3
1950	55.3	146.7	42.8	87.5	63.2	37.7	129.3	29.1
1951	66.8	149.7	49.4	91.9	72.6	44.6	135.2	33.0
1952	64.6	151.3	51.8	93.8	68.9	42.7	124.7	34.3
1953	59.6	147.5	54.0	93.1	64.0	40.4	110.3	36.6
1954	55.9	145.6	53.3	91.8	60.9	38.4	104.9	36.6
1955	59.4	147.9	56.1	94.2	63.1	40.2	106.1	37.9
1956	63.0	144.3	60.2	94.4	66.7	43.7	104.6	41.7
1957	65.7	139.5	61.3	92.7	70.9	47.1	107.2	43.9
1958	70.0	138.8	61.4	92.4	75.8	50.5	114.1	44.2
1959	74.3	137.9	64.1	93.3	79.6	53.9	115.8	46.5
1960	76.7	134.5	66.0	93.0	82.5	57.0	116.3	49.1
1961	79.9	132.3	67.6	93.1	85.8	60.4	118.2	51.1
1962	82.7	130.2	69.6	93.5	88.4	63.5	118.7	53.5
1963	83.4	127.4	71.2	93.3	89.4	65.5	117.2	55.9
1964	80.2	130.3	72.6	95.4	84.1	61.6	110.5	55.7
1965	79.4	122.5	75.2	93.8	84.6	64.8	105.6	61.3
1966	80.7	123.6	77.9	95.9	84.1	65.2	103.5	63.0
1967	83.4	125.0	79.9	97.6	85.5	66.7	104.4	63.9
1968	84.6	120.3	82.3	97.2	87.1	70.4	102.8	68.4
1969	85.9	116.1	83.4	96.2	89.3	74.0	103.0	71.8
1970	91.0	117.6	82.6	96.3	94.6	77.4	110.2	70.3
1971	92.6	109.5	84.3	94.2	98.3	84.5	109.8	76.9
1972	95.0	105.6	87.6	94.6	100.4	89.9	108.5	82.9
1973	99.5	112.0	91.6	99.6	99.9	88.8	108.7	81.7
1974	99.4	110.7	95.9	101.7	97.7	89.8	103.6	86.6
1975	102.2	108.4	95.2	100.4	101.8	94.3	107.3	87.9
1976	104.1	107.5	97.2	101.2	102.8	96.8	107.0	90.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	100.6	101.8	101.4	99.8	100.6	99.4	101.2
1979	103.1	99.3	102.7	101.5	101.6	103.8	100.4	103.4
1980	105.3	98.5	104.6	102.2	103.0	107.0	100.7	106.2

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TABLE VI. MANUFACTURING INDUSTRIES

3. Textiles

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	38.8	141.6	35.0	111.1	34.9	27.4	110.8	24.7
1949	35.5	121.9	39.9	98.8	35.9	29.1	89.0	32.7
1950	37.2	134.6	45.8	109.6	34.0	27.7	81.4	34.0
1951	39.1	129.8	52.6	108.4	36.0	30.1	74.3	40.5
1952	38.4	122.9	56.7	104.9	36.6	31.2	67.7	46.1
1953	37.7	122.2	59.7	105.4	35.8	30.8	63.1	48.8
1954	35.7	108.4	61.3	96.2	37.1	32.9	58.2	56.5
1955	39.7	113.8	64.6	101.0	39.3	34.9	61.4	56.8
1956	40.4	110.8	68.0	100.0	40.4	36.5	59.4	61.4
1957	39.4	103.5	70.1	95.6	41.3	38.1	56.3	67.7
1958	38.8	96.5	70.9	90.9	42.7	40.2	54.8	73.5
1959	42.5	103.3	73.4	96.5	44.1	41.2	57.9	71.1
1960	41.0	99.1	73.5	93.2	44.0	41.4	55.8	74.2
1961	41.7	96.6	73.3	91.2	45.7	43.2	56.8	75.9
1962	44.3	98.9	73.8	93.1	47.6	44.8	60.0	74.7
1963	56.1	97.0	74.1	91.7	61.2	57.9	75.7	76.4
1964	59.7	98.7	75.1	93.3	64.0	60.5	79.6	76.0
1965	65.5	104.5	77.2	98.2	66.7	62.7	84.8	73.9
1966	71.1	109.1	81.2	102.7	69.3	65.2	87.6	74.4
1967	69.1	106.7	83.8	101.4	68.2	64.8	82.5	78.5
1968	72.7	111.7	85.7	105.7	68.7	65.0	84.7	76.7
1969	74.4	111.1	88.0	105.7	70.4	67.0	84.6	79.2
1970	78.7	105.9	88.9	101.9	77.2	74.3	88.5	84.0
1971	81.9	105.7	90.5	102.1	80.2	77.5	90.6	85.6
1972	87.9	111.0	93.4	106.9	82.2	79.2	94.1	84.2
1973	91.4	112.3	95.9	108.4	84.3	81.4	95.3	85.4
1974	80.3	103.8	98.4	102.5	78.4	77.4	81.6	94.9
1975	76.5	93.2	97.8	94.2	81.2	82.1	78.2	105.0
1976	87.9	100.2	98.7	99.9	88.0	87.7	89.0	98.5
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	99.3	100.7	99.6	101.6	101.9	100.5	101.4
1979	102.9	97.5	100.5	98.2	104.8	105.5	102.3	103.1
1980	97.5	94.2	100.7	95.7	101.9	103.5	96.9	106.9

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TABLE VI. MANUFACTURING INDUSTRIES

4. Apparel

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	43.2	92.0	49.2	87.5	49.4	47.0	87.9	53.5
1949	43.1	89.9	46.6	85.3	50.5	47.9	92.4	51.8
1950	46.7	92.9	47.0	88.0	53.1	50.3	99.3	50.6
1951	49.4	92.1	51.1	87.9	56.3	53.7	96.7	55.5
1952	50.5	94.4	51.1	89.9	56.2	53.5	99.0	54.1
1953	51.1	96.4	50.8	91.6	55.7	52.9	100.6	52.6
1954	48.0	89.8	48.5	85.5	56.1	53.4	98.9	54.0
1955	51.5	94.5	49.9	89.8	57.3	54.5	103.2	52.8
1956	52.6	94.1	51.6	89.7	58.6	55.9	102.0	54.8
1957	51.9	92.6	51.2	88.3	58.7	56.0	101.4	55.2
1958	50.9	88.4	49.3	84.4	60.3	57.6	103.3	55.8
1959	54.2	95.0	50.0	90.3	60.0	57.0	108.5	52.6
1960	56.1	93.8	51.9	89.3	62.8	59.8	108.2	55.3
1961	55.1	92.0	53.3	87.8	62.8	59.9	103.4	58.0
1962	58.3	97.4	55.4	92.9	62.8	59.9	105.2	56.9
1963	60.9	98.7	57.7	94.3	64.5	61.7	105.4	58.5
1964	63.0	99.4	59.4	95.1	66.2	63.4	106.0	59.7
1965	69.2	105.4	62.8	100.8	68.6	65.6	110.1	59.6
1966	74.8	109.0	67.0	104.5	71.6	68.6	111.6	61.5
1967	73.5	107.5	70.7	103.4	71.1	68.4	103.9	65.8
1968	76.7	107.9	75.3	104.3	73.5	71.1	101.8	69.8
1969	76.5	107.7	79.0	104.4	73.3	71.0	96.8	73.4
1970	71.2	102.8	80.6	100.2	71.0	69.2	88.3	78.4
1971	71.7	102.2	83.7	100.1	71.6	70.1	85.7	81.9
1972	87.8	106.5	87.5	104.3	84.2	82.5	100.4	82.2
1973	93.9	109.9	91.3	107.8	87.1	85.4	102.8	83.0
1974	93.5	102.5	95.2	101.6	92.0	91.2	98.2	92.9
1975	91.2	93.7	94.8	93.8	97.2	97.4	96.2	101.2
1976	96.5	100.6	97.4	100.2	96.2	95.9	99.0	96.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.9	101.2	101.4	101.2	104.6	104.6	104.4	100.2
1979	108.1	99.1	101.6	99.4	108.8	109.1	106.4	102.5
1980	103.9	98.2	102.4	98.7	105.3	105.8	101.5	104.3

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TABLE VI. MANUFACTURING INDUSTRIES

5. Lumber

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	45.1	119.4	85.9	109.7	41.1	37.8	52.5	71.9
1949	39.6	107.3	77.6	98.7	40.2	36.9	51.1	72.3
1950	42.3	115.8	72.0	103.5	40.9	36.5	58.7	62.2
1951	42.8	119.5	69.1	105.5	40.6	35.8	62.0	57.8
1952	42.4	114.4	64.1	100.5	42.1	37.0	66.0	56.0
1953	40.4	111.3	59.6	97.1	41.6	36.3	67.7	53.6
1954	39.0	102.8	56.3	90.0	43.3	37.9	69.3	54.7
1955	45.2	107.4	55.1	93.1	48.5	42.1	82.0	51.3
1956	45.3	104.4	53.4	90.4	50.1	43.4	84.7	51.2
1957	42.7	94.1	49.8	82.0	52.1	45.4	85.8	52.9
1958	39.7	89.8	47.1	78.1	50.8	44.2	84.2	52.5
1959	47.0	97.9	45.9	83.8	56.1	48.0	102.4	46.9
1960	43.9	92.5	48.0	80.1	54.8	47.5	91.5	52.0
1961	42.1	87.9	48.5	76.8	54.9	48.0	86.9	55.2
1962	42.3	89.1	49.7	78.0	54.2	47.4	85.0	55.8
1963	52.7	87.4	52.2	77.2	68.3	60.4	101.0	59.8
1964	64.0	90.5	54.1	80.0	79.9	70.7	118.3	59.7
1965	71.7	93.4	57.3	82.9	86.4	76.7	125.1	61.3
1966	70.0	94.5	61.0	84.5	82.9	74.1	114.7	64.6
1967	71.9	91.8	62.7	82.9	86.8	78.4	114.7	68.3
1968	74.8	91.3	64.6	82.9	90.2	81.9	115.9	70.7
1969	73.8	94.8	68.3	86.4	85.4	77.8	108.1	72.0
1970	75.7	89.2	70.5	83.3	90.9	84.9	107.4	79.1
1971	77.8	92.3	73.3	86.3	90.2	84.3	106.1	79.4
1972	88.6	101.1	77.9	93.7	94.6	87.7	113.7	77.1
1973	93.2	105.0	83.0	98.0	95.1	88.7	112.2	79.1
1974	90.9	96.6	90.3	94.6	96.1	94.0	100.7	93.4
1975	86.0	81.9	92.0	85.1	101.0	105.0	93.4	112.4
1976	94.9	94.1	99.6	94.6	100.4	100.9	99.2	101.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.4	104.4	106.0	105.0	96.5	97.0	95.6	101.5
1979	103.7	106.4	111.0	107.9	96.1	97.5	93.4	104.4
1980	91.2	95.3	112.0	100.7	90.6	95.7	81.4	117.5

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TABLE VI. MANUFACTURING INDUSTRIES

6. Furniture

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	42.8	77.1	53.8	73.5	58.3	55.6	79.6	69.8
1949	40.5	69.3	52.7	66.7	60.7	58.4	76.8	76.1
1950	49.1	81.8	54.1	77.6	63.3	60.1	90.8	66.2
1951	46.9	79.2	57.3	75.7	61.9	59.2	81.8	72.3
1952	51.9	79.7	57.8	76.3	68.1	65.2	89.8	72.6
1953	50.4	81.6	58.2	77.9	64.6	61.7	86.6	71.3
1954	48.3	74.3	57.0	71.5	67.6	65.1	84.8	76.7
1955	56.2	81.0	58.8	77.6	72.4	69.3	95.6	72.5
1956	56.5	82.1	60.6	78.7	71.8	68.8	93.2	73.8
1957	53.9	80.5	60.5	77.3	69.7	66.9	89.1	75.1
1958	49.1	76.7	59.5	73.9	66.5	64.0	82.5	77.6
1959	56.1	83.9	60.0	80.2	69.9	66.8	93.5	71.5
1960	55.3	82.4	60.4	79.0	70.1	67.1	91.6	73.3
1961	53.3	79.2	60.1	76.1	70.1	67.3	88.8	75.8
1962	57.6	83.8	60.7	80.1	71.9	68.8	94.9	72.5
1963	60.2	83.7	62.1	80.3	75.0	71.9	96.9	74.2
1964	65.3	87.6	63.3	83.8	77.9	74.6	103.2	72.2
1965	73.7	93.3	65.9	89.1	82.8	79.0	111.9	70.6
1966	78.0	98.7	70.8	94.3	82.7	79.0	110.3	71.7
1967	74.0	96.5	73.6	92.8	79.8	76.7	100.6	76.3
1968	79.5	99.2	75.4	95.3	83.4	80.1	105.3	76.1
1969	84.8	100.7	79.1	97.1	87.3	84.2	107.2	78.6
1970	72.8	93.2	82.6	91.4	79.7	78.1	88.2	88.6
1971	76.3	95.8	83.7	93.7	81.4	79.7	91.2	87.4
1972	92.2	104.9	87.6	102.0	90.4	88.0	105.3	83.6
1973	94.5	109.5	93.2	106.8	88.5	86.3	101.4	85.2
1974	91.3	103.8	98.3	102.9	88.7	88.0	92.9	94.7
1975	80.2	86.3	95.6	87.9	91.3	92.9	83.9	110.8
1976	92.2	92.8	97.8	93.6	98.5	99.4	94.3	105.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.2	105.8	104.9	105.7	103.3	103.2	104.1	99.1
1979	112.6	104.0	108.8	104.8	107.4	108.3	103.5	104.6
1980	105.3	98.1	109.3	100.0	105.2	107.3	96.3	111.4

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TABLE VI. MANUFACTURING INDUSTRIES

7. Paper

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	30.2	68.1	41.1	59.5	50.7	44.3	73.5	60.3
1949	30.1	64.1	42.1	57.3	52.5	47.0	71.6	65.7
1950	39.2	70.4	43.3	61.9	63.3	55.6	90.5	61.4
1951	41.9	73.8	45.3	64.8	64.6	56.7	92.4	61.4
1952	38.5	72.2	46.5	64.2	60.1	53.4	82.9	64.4
1953	40.8	76.5	47.5	67.4	60.6	53.4	85.9	62.1
1954	41.9	75.5	48.8	67.3	62.3	55.5	85.8	64.7
1955	46.2	79.3	50.8	70.4	65.5	58.2	90.9	64.1
1956	47.5	81.4	53.1	72.6	65.4	58.4	89.5	65.3
1957	44.0	81.1	54.8	73.1	60.2	54.2	80.3	67.6
1958	44.3	79.6	55.4	72.4	61.2	55.6	80.0	69.6
1959	50.1	84.1	56.5	75.7	66.2	59.6	88.6	67.2
1960	49.2	85.0	57.7	76.7	64.1	57.9	85.2	67.9
1961	51.8	85.7	58.9	77.6	66.8	60.5	87.9	68.8
1962	54.2	87.4	60.4	79.2	68.4	62.0	89.6	69.1
1963	55.2	88.4	61.3	80.2	68.8	62.4	90.0	69.3
1964	59.4	89.7	63.1	81.7	72.8	66.2	94.2	70.3
1965	62.4	92.4	65.9	84.4	73.9	67.6	94.7	71.4
1966	66.7	97.1	70.0	88.0	75.0	68.7	95.4	72.0
1967	63.9	98.0	73.6	90.8	70.4	65.2	86.8	75.1
1968	71.9	100.1	75.9	93.0	77.3	71.8	94.7	75.7
1969	78.9	102.9	78.3	95.6	82.5	76.7	100.8	76.1
1970	74.2	99.9	81.0	94.4	78.6	74.2	91.6	81.0
1971	78.6	97.0	81.9	92.5	84.9	81.0	95.9	84.5
1972	87.8	99.5	83.0	94.7	92.7	88.2	105.7	83.4
1973	98.2	101.9	84.9	96.9	101.3	96.3	115.6	83.3
1974	99.3	100.5	89.6	97.3	102.0	98.8	110.8	89.1
1975	82.9	90.3	92.2	90.9	91.3	91.8	90.0	102.1
1976	94.6	96.7	96.0	96.5	98.0	97.8	98.5	99.3
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	102.2	101.0	104.1	101.9	100.3	101.2	98.2	103.1
1979	105.2	101.2	110.0	103.8	101.3	103.9	95.6	108.7
1980	105.7	98.9	115.8	103.9	101.8	106.9	91.3	117.1

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TABLE VI. MANUFACTURING INDUSTRIES

8. Printing & Publishing

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	43.0	70.5	52.4	67.0	64.2	61.0	82.1	74.3
1949	45.1	69.5	52.2	66.1	68.3	65.0	86.4	75.2
1950	45.5	69.6	52.5	66.3	68.7	65.4	86.7	75.4
1951	46.5	71.0	53.4	67.5	68.8	65.5	87.0	75.2
1952	47.4	71.8	52.5	[illegible]	69.6	66.0	90.3	73.0
1953	49.4	74.1	51.4	[illegible]	70.8	66.7	96.1	69.4
1954	52.0	74.2	50.2	69.6	74.6	70.0	103.5	67.7
1955	55.3	76.3	50.2	71.3	77.5	72.4	110.0	65.8
1956	57.4	78.7	50.2	73.3	78.4	73.0	114.4	63.8
1957	58.2	79.0	49.7	73.4	79.3	73.7	117.2	62.9
1958	56.7	78.0	49.6	72.7	78.1	72.7	114.4	63.5
1959	61.0	80.0	49.9	74.3	82.0	76.2	122.1	62.5
1960	62.5	82.0	52.2	76.4	81.8	76.2	119.7	63.6
1961	63.3	81.9	54.2	76.6	82.6	77.2	116.9	66.1
1962	65.9	82.5	56.4	77.5	85.1	79.9	116.9	68.4
1963	71.4	83.3	58.5	78.5	91.0	85.6	122.0	70.3
1964	78.4	84.9	60.4	80.1	97.8	92.3	129.8	71.1
1965	80.6	88.3	63.0	83.4	96.7	91.3	128.0	71.4
1966	84.8	91.0	66.8	86.2	98.4	93.2	127.0	73.4
1967	86.2	93.0	70.8	88.6	97.4	92.7	121.7	76.2
1968	88.1	94.2	74.3	90.1	97.8	93.6	118.7	78.8
1969	93.0	96.6	77.5	92.6	100.3	96.3	119.9	80.3
1970	88.0	96.0	79.6	92.6	95.0	91.7	110.5	83.0
1971	88.6	93.5	83.1	91.3	97.0	94.8	106.5	89.0
1972	92.9	95.1	86.5	93.4	99.6	97.7	107.4	91.0
1973	100.1	97.2	89.9	95.7	104.6	103.0	111.4	92.4
1974	95.2	97.0	93.0	96.2	98.9	98.1	102.3	95.9
1975	94.8	94.3	94.3	94.3	100.5	100.5	100.5	100.1
1976	95.9	95.7	96.6	95.9	100.0	100.2	99.2	101.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.9	104.5	104.6	104.5	99.4	99.4	99.3	100.1
1979	106.4	109.0	108.5	108.9	97.7	97.6	98.1	99.5
1980	109.1	111.9	111.0	111.7	97.7	97.5	98.3	99.2

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TABLE VI. MANUFACTURING INDUSTRIES

9. Chemicals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	17.3	61.4	29.3	47.6	36.3	28.1	59.0	47.7
1949	16.9	57.5	31.0	46.2	36.6	29.5	54.6	54.0
1950	20.3	59.8	33.1	48.5	41.8	33.9	61.3	55.4
1951	21.7	65.9	36.6	53.5	40.5	32.9	59.2	55.6
1952	21.9	67.3	39.5	55.7	39.3	32.5	55.3	58.8
1953	23.4	71.0	41.9	58.8	39.9	33.0	56.0	59.0
1954	24.7	69.5	43.8	58.9	41.9	35.5	56.3	63.1
1955	28.4	71.5	45.7	60.9	46.8	39.8	62.2	64.0
1956	29.8	73.7	48.0	63.1	47.1	40.4	62.0	65.2
1957	31.1	74.7	50.1	64.7	48.0	41.5	61.9	67.1
1958	30.5	73.1	51.8	64.6	47.2	41.7	58.9	70.8
1959	35.8	75.3	53.4	66.6	53.7	47.5	67.0	70.9
1960	35.5	77.1	53.9	67.8	52.4	46.1	65.9	69.9
1961	37.3	77.2	55.1	68.4	54.5	48.3	67.6	71.4
1962	39.9	79.1	56.4	70.1	56.9	50.4	70.8	71.2
1963	44.7	80.5	57.4	71.3	62.6	55.5	77.9	71.2
1964	48.4	81.9	59.0	72.9	66.4	59.1	82.0	72.0
1965	52.8	85.2	62.3	76.2	69.3	62.0	84.8	73.1
1966	56.2	90.0	66.0	80.6	69.8	62.5	85.2	73.3
1967	57.3	93.3	69.5	84.0	68.2	61.4	82.5	74.4
1968	65.2	96.7	72.1	87.1	74.9	67.4	90.5	74.5
1969	68.0	99.1	75.0	89.8	75.7	68.6	90.7	75.6
1970	68.8	97.9	77.5	90.0	76.4	70.2	88.8	79.1
1971	73.0	94.5	79.1	88.5	82.4	77.2	92.3	83.7
1972	79.9	94.4	79.9	88.8	89.9	84.6	99.9	84.7
1973	87.6	97.1	81.1	90.9	96.4	90.3	108.0	83.6
1974	85.4	98.5	85.9	93.7	91.2	86.7	99.5	87.2
1975	85.0	93.3	89.4	91.8	92.6	91.1	95.1	95.8
1976	95.1	96.9	94.2	95.9	99.3	98.2	101.0	97.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	103.3	102.5	103.9	103.0	100.2	100.7	99.4	101.4
1979	109.0	104.0	108.2	105.6	103.2	104.8	100.8	104.0
1980	107.2	103.6	112.4	107.0	100.2	103.5	95.4	108.4

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TABLE VI. MANUFACTURING INDUSTRIES

10. Petroleum

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.4	108.1	40.7	63.2	59.3	34.6	91.9	37.7
1949	40.2	104.4	42.7	63.6	63.1	38.5	94.0	40.9
1950	43.4	103.6	44.0	64.4	67.4	41.9	98.6	42.5
1951	45.2	109.7	45.8	67.6	66.9	41.2	98.7	41.7
1952	45.6	110.4	48.2	69.7	65.5	41.4	94.6	43.7
1953	47.6	114.3	51.5	73.4	64.9	41.7	92.4	45.1
1954	47.5	113.1	53.3	74.5	63.8	42.0	89.0	47.2
1955	52.6	112.7	55.1	75.7	69.5	46.7	95.5	48.9
1956	54.2	112.4	57.0	77.1	70.3	48.2	95.1	50.7
1957	52.6	110.6	59.0	78.2	67.2	47.5	89.1	53.4
1958	53.7	107.2	59.5	77.6	69.2	50.1	90.2	55.5
1959	60.6	103.4	59.3	76.3	79.5	58.6	102.2	57.3
1960	62.2	101.8	60.4	76.3	81.5	61.1	103.0	59.4
1961	64.5	97.2	61.8	75.3	85.7	66.4	104.4	63.6
1962	69.6	94.6	62.9	74.9	92.9	73.6	110.7	66.5
1963	71.8	90.8	63.5	73.8	97.4	79.1	113.2	69.9
1964	73.6	88.6	63.9	73.2	100.6	83.1	115.1	72.2
1965	77.4	89.3	65.2	74.2	104.4	86.8	118.7	73.1
1966	79.1	90.9	66.9	75.8	104.2	87.0	118.2	73.6
1967	78.9	91.2	69.9	77.7	101.5	86.5	112.8	76.7
1968	81.1	92.1	72.9	79.9	101.5	88.0	111.2	79.2
1969	77.7	89.9	75.5	80.5	96.5	86.4	102.9	84.0
1970	89.4	95.0	78.2	84.1	106.3	94.1	114.3	82.3
1971	94.6	97.0	81.1	86.6	109.2	97.5	116.7	83.5
1972	91.8	96.8	82.6	87.6	104.8	94.8	111.1	85.3
1973	107.0	95.1	83.7	87.7	122.0	112.5	127.9	88.0
1974	102.5	96.2	87.7	90.7	113.0	106.5	116.8	91.2
1975	91.8	93.1	92.0	92.4	99.3	98.5	99.7	98.8
1976	101.1	96.7	96.6	96.6	104.6	104.5	104.7	99.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.5	104.8	102.3	102.9	101.6	99.8	102.2	97.6
1979	111.5	106.4	104.3	104.8	106.4	104.8	106.9	98.0
1980	105.4	95.6	107.3	102.9	102.4	110.2	98.2	112.2

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TABLE VI. MANUFACTURING INDUSTRIES

11. Rubber

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	22.8	42.2	28.1	39.1	58.5	54.1	81.4	66.5
1949	20.9	37.7	28.8	35.7	58.5	55.5	72.6	76.4
1950	23.5	43.8	30.3	40.8	57.6	53.6	77.6	69.1
1951	30.3	46.7	33.0	43.7	69.4	64.9	91.7	70.7
1952	30.6	47.3	34.9	44.6	68.6	64.6	87.6	73.8
1953	30.3	50.0	36.6	47.0	64.4	60.5	82.9	73.1
1954	27.2	45.0	37.6	43.4	62.6	60.4	72.2	83.6
1955	30.1	52.0	39.4	49.2	61.3	58.0	76.5	75.8
1956	29.8	51.1	41.3	49.0	60.8	58.3	72.1	80.8
1957	29.6	51.9	42.4	49.8	59.4	57.0	69.8	81.7
1958	28.7	46.5	43.6	46.0	62.4	61.6	65.7	93.7
1959	35.7	52.7	45.5	51.2	69.9	67.9	78.6	86.4
1960	35.9	51.9	46.7	50.9	70.5	69.1	76.9	89.9
1961	37.7	51.9	47.0	50.9	74.1	72.8	80.3	90.6
1962	43.3	57.1	48.7	55.3	78.3	75.8	89.0	85.2
1963	47.2	58.4	49.4	56.5	83.7	80.9	95.6	84.6
1964	51.2	61.8	51.2	59.5	86.1	82.9	100.1	82.8
1965	55.7	67.8	54.6	64.9	85.8	82.1	102.0	80.5
1966	60.4	73.5	58.4	70.1	86.3	82.3	103.5	79.5
1967	60.7	73.5	61.4	70.8	85.7	82.6	99.0	83.5
1968	68.5	80.3	65.8	77.1	88.8	85.2	104.1	81.9
1969	75.7	84.4	70.5	81.4	93.0	89.7	107.3	83.6
1970	68.2	80.5	73.8	79.1	86.3	84.7	92.4	91.7
1971	74.3	80.8	75.8	79.7	93.2	91.9	98.0	93.8
1972	83.6	89.0	80.4	87.1	95.9	93.9	104.0	90.3
1973	95.4	97.7	86.3	95.2	100.3	97.7	110.6	88.4
1974	88.6	96.7	92.7	95.8	92.5	91.7	95.6	95.9
1975	80.7	83.6	93.2	85.7	94.2	96.6	86.6	111.5
1976	86.2	89.7	95.1	90.9	94.8	96.0	90.6	105.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	105.6	105.9	105.5	105.9	99.7	99.7	100.1	99.6
1979	106.4	108.2	108.6	108.3	98.3	98.4	98.0	100.4
1980	100.6	98.2	106.7	100.1	100.6	102.5	94.3	108.6

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TABLE VI. MANUFACTURING INDUSTRIES

12. Leather

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	103.4	161.5	67.1	149.4	69.2	64.0	154.1	41.6
1949	91.9	150.6	66.9	140.2	65.6	61.0	137.3	44.4
1950	91.3	156.0	68.5	145.1	63.0	58.6	133.4	43.9
1951	97.8	147.1	72.6	138.4	70.6	66.4	134.6	49.3
1952	86.2	154.7	72.6	144.8	59.5	55.7	118.7	46.9
1953	91.3	154.0	72.8	144.3	63.3	59.2	125.4	47.2
1954	83.9	145.0	71.1	136.3	61.5	57.8	118.0	49.0
1955	88.1	153.2	73.6	143.8	61.3	57.5	119.7	48.1
1956	88.7	151.0	75.8	142.3	62.3	58.7	117.0	50.2
1957	86.9	146.7	74.8	138.6	62.7	59.2	116.1	51.0
1958	82.1	139.2	72.9	131.8	62.3	59.0	112.6	52.4
1959	100.6	148.6	73.4	139.9	71.9	67.7	136.9	49.4
1960	90.6	141.2	74.6	133.3	67.9	64.1	121.4	52.8
1961	91.4	140.9	75.4	133.1	68.7	64.9	121.2	53.5
1962	99.0	142.0	76.6	134.2	73.8	69.7	129.2	54.0
1963	101.1	139.0	77.3	131.6	76.9	72.8	130.8	55.6
1964	103.3	137.6	77.9	130.4	79.3	75.1	132.7	56.6
1965	110.3	141.1	80.1	133.7	82.5	78.2	137.7	56.8
1966	114.8	147.4	83.7	139.7	82.1	77.8	137.2	56.7
1967	104.7	141.0	86.7	134.3	78.0	74.3	120.8	61.5
1968	108.6	143.2	90.9	136.7	79.5	75.8	119.5	63.5
1969	104.1	133.8	92.4	128.4	81.1	77.8	112.6	69.1
1970	94.6	125.6	92.2	121.2	78.0	75.3	102.6	73.4
1971	94.5	119.4	93.3	116.0	81.5	79.2	101.3	78.2
1972	96.6	119.3	95.1	116.1	83.2	81.0	101.5	79.8
1973	105.2	112.8	97.2	110.8	95.0	93.3	108.3	86.1
1974	97.9	105.1	99.2	104.3	93.8	93.1	98.7	94.4
1975	94.6	96.8	97.4	96.9	97.6	97.7	97.1	100.6
1976	107.3	103.1	98.7	102.5	104.6	104.0	108.7	95.7
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	101.2	102.1	101.2	102.0	99.2	99.1	100.0	99.1
1979	98.2	96.6	101.5	97.3	101.0	101.7	96.8	105.0
1980	96.7	92.1	102.1	93.4	103.4	105.0	94.6	110.9

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TABLE VI. MANUFACTURING INDUSTRIES

13. Stone, Clay, & Glass

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	47.8	81.7	39.4	69.8	68.4	58.5	121.3	48.2
1949	44.6	75.0	40.4	65.2	68.4	59.4	110.2	53.9
1950	53.4	81.9	42.2	70.7	75.5	65.2	126.5	51.5
1951	57.3	88.3	45.2	76.2	75.3	64.9	126.7	51.2
1952	55.0	84.3	46.7	73.6	74.7	65.3	117.7	55.5
1953	58.2	86.4	48.2	75.5	77.1	67.4	120.8	55.8
1954	56.7	81.8	49.3	72.5	78.2	69.3	115.1	60.2
1955	65.4	88.4	52.4	78.1	83.7	73.9	124.9	59.2
1956	64.3	90.3	56.6	80.6	79.9	71.3	113.8	62.6
1957	62.5	87.6	59.4	79.4	78.8	71.4	105.3	67.8
1958	61.0	82.2	60.6	75.8	80.5	74.2	100.6	73.7
1959	69.0	90.2	62.6	82.1	84.1	76.5	110.4	69.3
1960	67.5	89.2	64.0	81.9	82.3	75.6	105.4	71.7
1961	67.9	86.2	65.2	80.3	84.5	78.7	104.0	75.7
1962	71.3	87.9	66.5	81.9	87.1	81.1	107.3	75.6
1963	77.4	89.5	68.1	83.5	92.7	86.5	113.7	76.1
1964	82.6	92.6	69.6	86.1	96.0	89.3	118.8	75.2
1965	85.6	95.2	71.9	88.6	96.6	90.0	119.1	75.6
1966	86.1	97.5	75.4	91.4	94.2	88.3	114.1	77.4
1967	83.7	94.5	77.5	90.1	92.9	88.5	108.0	82.0
1968	87.3	96.1	78.8	91.6	95.4	90.9	110.8	82.0
1969	92.5	98.9	81.4	94.4	98.0	93.5	113.7	82.3
1970	88.9	95.6	83.4	92.5	96.2	93.0	106.6	87.2
1971	90.6	97.2	84.7	93.9	96.4	93.2	106.9	87.2
1972	99.4	103.0	87.3	98.9	100.5	96.5	113.9	84.7
1973	107.3	108.2	90.8	103.7	103.4	99.1	118.1	83.9
1974	100.6	105.7	94.6	102.8	97.9	95.3	106.4	89.6
1975	91.7	92.4	95.7	93.2	98.3	99.2	95.8	103.6
1976	100.6	95.8	97.7	96.3	104.5	105.0	103.0	102.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.2	105.0	104.3	104.8	104.1	104.0	104.7	99.3
1979	111.4	106.7	108.9	107.3	103.8	104.4	102.3	102.1
1980	100.5	99.3	111.4	102.4	98.1	101.3	90.3	112.2

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TABLE VI. MANUFACTURING INDUSTRIES

14. Primary Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	81.4	101.6	40.0	84.3	96.6	80.1	203.7	39.3
1949	72.4	85.7	41.0	73.3	98.7	84.4	176.5	47.8
1950	85.6	99.7	42.6	83.7	102.3	85.9	200.9	42.8
1951	102.6	110.8	46.5	92.8	110.6	92.6	220.8	41.9
1952	91.5	102.1	49.2	87.4	104.7	89.6	185.8	48.2
1953	105.2	110.9	51.7	94.4	111.4	94.9	203.4	46.6
1954	82.2	92.8	52.8	81.9	100.4	88.6	155.7	56.9
1955	101.0	106.5	54.9	92.3	109.5	94.8	184.1	51.5
1956	99.8	108.5	57.9	94.6	105.4	91.9	172.2	53.4
1957	100.6	105.1	61.1	93.2	108.0	95.7	164.8	58.1
1958	76.4	86.9	62.4	80.7	94.7	87.8	122.3	71.8
1959	84.3	93.5	63.5	85.7	98.3	90.1	132.6	67.9
1960	82.8	94.5	65.6	87.0	95.2	87.7	126.3	69.4
1961	78.9	88.7	66.8	83.3	94.8	88.9	118.1	75.3
1962	83.9	91.7	67.4	85.5	98.0	91.5	124.5	73.5
1963	90.4	94.1	68.3	87.5	103.3	96.1	132.3	72.7
1964	102.2	101.1	70.1	93.1	109.8	101.1	145.8	69.3
1965	110.6	107.7	72.5	98.5	112.3	102.7	152.6	67.3
1966	118.0	111.3	76.4	102.2	115.4	106.0	154.4	68.7
1967	111.6	106.7	80.2	100.1	111.5	104.6	139.1	75.2
1968	111.1	107.6	82.9	101.6	109.3	103.2	134.0	77.0
1969	112.5	111.5	85.2	105.0	107.1	100.9	132.0	76.4
1970	103.1	104.4	87.7	100.3	102.7	98.7	117.5	84.0
1971	100.4	96.5	88.4	94.5	106.2	104.0	113.6	91.6
1972	107.1	99.7	89.5	97.2	110.2	107.4	119.6	89.8
1973	125.9	109.0	89.6	104.2	120.8	115.5	140.6	82.2
1974	127.4	109.9	92.7	105.7	120.6	115.9	137.4	84.4
1975	96.0	93.7	96.0	94.2	101.9	102.5	100.0	102.5
1976	100.0	96.5	98.4	97.0	103.2	103.7	101.7	102.0
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	109.1	104.3	101.6	103.8	105.1	104.6	107.4	97.4
1979	113.3	106.1	102.9	105.4	107.5	106.8	110.1	97.0
1980	95.5	93.2	104.1	96.0	99.6	102.5	91.8	111.7

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TABLE VI. MANUFACTURING INDUSTRIES

15. Fabricated Metals

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	38.5	65.8	26.4	57.7	66.7	58.5	146.0	40.1
1949	35.2	58.0	27.1	51.7	68.1	60.8	129.8	46.8
1950	42.0	66.9	29.9	59.4	70.7	62.7	140.3	44.7
1951	45.8	74.7	34.6	66.6	68.8	61.3	132.3	46.3
1952	48.9	75.3	36.9	67.6	72.3	64.9	132.3	49.0
1953	53.9	82.9	39.5	74.1	72.7	65.0	136.2	47.7
1954	49.4	73.9	40.7	67.4	73.4	66.9	121.5	55.0
1955	52.8	78.3	43.8	71.6	73.8	67.4	120.6	55.9
1956	53.7	78.8	46.9	72.6	73.9	68.1	114.6	59.5
1957	54.8	80.0	48.5	73.9	74.2	68.6	113.0	60.7
1958	49.8	72.3	49.1	68.1	73.2	68.9	101.5	67.9
1959	55.6	76.7	51.2	72.0	77.2	72.4	108.5	66.8
1960	55.6	76.9	52.3	72.3	76.9	72.3	106.3	68.0
1961	55.8	73.8	52.7	69.9	79.9	75.6	105.9	71.4
1962	60.8	78.1	54.0	73.6	82.6	77.9	112.7	69.1
1963	63.4	80.7	55.5	76.0	83.5	78.6	114.2	68.8
1964	67.5	83.2	58.8	78.7	85.8	81.1	114.7	70.7
1965	74.6	89.0	62.9	84.2	88.6	83.7	118.6	70.6
1966	81.7	96.8	67.0	91.3	89.5	84.4	121.9	69.2
1967	83.5	99.6	70.9	94.3	88.6	83.8	117.9	71.1
1968	88.3	103.8	74.9	98.4	89.8	85.1	117.9	72.2
1969	93.3	106.9	77.1	101.4	92.0	87.2	121.0	72.1
1970	85.2	97.9	78.0	94.2	90.4	87.0	109.2	79.7
1971	81.7	92.5	78.9	90.0	90.8	88.3	103.6	85.2
1972	89.9	98.2	81.0	95.0	94.6	91.5	110.9	82.5
1973	100.0	105.7	86.3	102.1	97.9	94.6	115.9	81.6
1974	90.4	103.0	92.7	101.1	89.4	87.7	97.4	90.0
1975	81.3	90.6	93.6	91.1	89.2	89.8	86.9	103.3
1976	92.0	95.3	96.6	95.5	96.3	96.6	95.3	101.4
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.4	105.4	104.6	105.3	99.2	99.0	99.7	99.3
1979	110.3	108.2	109.9	108.5	101.7	102.0	100.3	101.6
1980	101.0	101.2	111.7	103.2	97.9	99.7	90.4	110.3

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TABLE VI. MANUFACTURING INDUSTRIES

16. Machinery, except Electrical

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	37.6	63.6	28.6	55.8	67.4	59.1	131.3	45.0
1949	33.5	52.9	28.9	47.5	70.4	63.2	115.6	54.7
1950	35.4	56.9	30.2	50.9	69.5	62.2	117.1	53.1
1951	46.0	70.7	33.8	62.4	73.7	65.0	136.1	47.8
1952	50.5	72.6	35.8	64.4	78.4	69.5	140.8	49.4
1953	49.3	73.5	37.7	65.5	75.4	67.1	130.8	51.3
1954	44.2	64.6	38.4	58.8	75.2	68.3	115.0	59.4
1955	45.1	67.8	40.2	61.6	73.2	66.6	112.1	59.4
1956	49.9	73.9	42.5	66.9	74.6	67.5	117.5	57.5
1957	47.1	72.7	43.8	66.2	71.1	64.8	107.5	60.3
1958	39.8	60.9	43.7	57.0	69.8	65.3	91.1	71.8
1959	46.2	67.1	44.4	62.0	74.6	68.9	104.3	66.1
1960	46.2	67.7	44.9	62.6	73.8	68.2	103.0	66.3
1961	46.1	65.0	45.6	60.6	76.1	71.0	101.2	70.2
1962	51.6	69.1	47.9	64.4	80.2	74.7	107.9	69.2
1963	53.8	71.5	49.2	66.5	80.8	75.2	109.2	68.9
1964	60.4	76.1	52.1	70.7	85.4	79.4	115.9	68.6
1965	66.1	83.3	55.8	77.1	85.7	79.4	118.4	67.0
1966	73.7	93.0	60.8	85.8	85.9	79.3	121.2	65.4
1967	74.3	93.4	64.9	87.1	85.3	79.5	114.4	69.5
1968	74.3	91.7	67.6	86.4	86.0	81.0	110.0	73.7
1969	77.5	95.7	72.2	90.6	85.6	81.0	107.3	75.4
1970	77.3	91.0	75.4	87.6	88.3	84.9	102.5	82.8
1971	72.0	82.5	76.0	81.0	88.8	87.3	94.8	92.1
1972	81.5	88.6	78.7	86.5	94.3	91.9	103.5	88.8
1973	92.2	99.3	85.1	96.2	95.9	92.9	108.3	85.8
1974	94.2	103.3	93.1	101.1	93.3	91.2	101.2	90.1
1975	85.9	93.8	93.7	93.8	91.5	91.5	91.7	99.9
1976	92.8	94.7	95.7	94.9	97.8	98.0	97.0	101.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	108.4	106.7	108.0	99.9	99.5	101.1	98.4
1979	115.5	114.7	116.0	115.0	100.5	100.7	99.6	101.1
1980	115.6	114.1	120.9	115.6	100.0	101.3	95.6	106.0

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TABLE VI. MANUFACTURING INDUSTRIES

17. Electrical Machinery

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	16.0	51.1	26.8	46.3	34.6	31.4	59.9	52.5
1949	14.7	43.9	26.4	40.5	36.4	33.6	55.8	60.2
1950	17.9	52.2	27.0	47.3	37.9	34.3	66.3	51.7
1951	21.3	59.1	29.3	53.3	40.0	36.1	72.9	49.5
1952	26.1	63.7	30.4	57.2	45.7	41.0	85.9	47.8
1953	27.1	71.3	31.5	63.5	42.7	38.0	86.0	44.2
1954	24.3	61.9	31.4	56.0	43.4	39.2	77.5	50.6
1955	26.1	65.4	32.3	59.0	44.3	39.9	80.8	49.4
1956	28.4	69.9	33.8	62.8	45.2	40.7	84.1	48.4
1957	29.5	70.0	34.4	63.0	46.8	42.2	85.7	49.2
1958	27.8	64.5	34.3	58.6	47.4	43.1	81.1	53.1
1959	33.3	73.1	35.3	65.7	50.7	45.6	94.4	48.3
1960	35.0	75.5	37.7	68.1	51.4	46.3	92.8	49.9
1961	36.9	76.2	40.0	69.1	53.4	48.5	92.3	52.5
1962	41.6	81.3	43.9	74.0	56.2	51.1	94.6	54.0
1963	45.6	80.0	45.7	73.4	62.1	57.0	99.7	57.2
1964	48.2	80.0	48.4	73.9	65.2	60.3	99.6	60.5
1965	57.4	87.0	53.5	80.6	71.2	66.0	107.2	61.5
1966	66.2	100.2	61.9	92.9	71.3	66.1	106.9	61.8
1967	68.8	101.2	67.2	94.7	72.6	68.0	102.4	66.4
1968	72.6	102.5	71.2	96.6	75.2	70.8	101.9	69.5
1969	78.6	104.6	76.3	99.3	79.2	75.2	103.1	72.9
1970	73.2	98.3	79.0	94.7	77.3	74.5	92.7	80.3
1971	74.0	92.1	79.2	89.7	82.5	80.3	93.4	86.0
1972	83.1	96.8	81.4	93.9	88.5	85.9	102.0	84.2
1973	90.7	105.0	89.8	102.1	88.8	86.4	101.0	85.5
1974	84.0	103.3	94.5	101.6	82.7	81.3	88.9	91.5
1975	77.8	88.9	91.9	89.5	87.0	87.5	84.7	103.3
1976	86.7	93.5	95.2	93.8	92.4	92.8	91.1	101.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	113.6	106.6	106.3	106.5	106.6	106.6	106.9	99.7
1979	121.4	112.6	114.2	112.9	107.5	107.8	106.3	101.4
1980	120.5	111.8	119.0	113.2	106.5	107.7	101.3	106.4

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TABLE VI. MANUFACTURING INDUSTRIES

18. Transportation Equipment

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	23.3	62.7	35.4	55.7	41.7	37.1	65.8	56.4
1949	23.6	60.2	35.1	53.9	43.8	39.2	67.3	58.2
1950	31.2	65.5	36.4	58.1	53.7	47.6	85.7	55.6
1951	34.2	78.8	40.3	68.9	49.6	43.4	84.7	51.2
1952	39.0	91.6	42.4	78.9	49.4	42.6	91.9	46.3
1953	47.6	106.1	44.2	90.0	52.9	44.9	107.7	41.7
1954	43.7	92.3	45.5	80.3	54.4	47.3	95.9	49.3
1955	51.7	99.8	48.2	86.5	59.7	51.8	107.1	48.3
1956	44.3	97.6	52.4	86.1	51.4	45.3	84.5	53.6
1957	47.3	99.4	54.0	87.9	53.8	47.6	87.6	54.3
1958	39.1	82.9	53.4	75.6	51.7	47.1	73.3	64.4
1959	43.7	87.9	54.2	79.5	55.0	49.8	80.7	61.7
1960	44.4	85.8	53.5	77.7	57.1	51.7	82.9	62.4
1961	42.2	80.5	54.0	73.9	57.2	52.5	78.2	67.1
1962	49.8	88.9	55.8	80.6	61.8	56.0	89.3	62.7
1963	56.7	92.5	58.4	83.9	67.6	61.4	97.1	63.2
1964	59.7	92.1	61.1	84.3	70.8	64.8	97.7	66.4
1965	67.8	100.4	65.0	91.5	74.2	67.6	104.4	64.8
1966	73.5	109.2	72.2	99.9	73.5	67.3	101.7	66.1
1967	73.5	108.1	79.8	101.0	72.8	68.0	92.0	73.9
1968	82.3	114.3	84.0	106.7	77.1	71.9	97.9	73.5
1969	79.3	111.7	88.0	105.7	75.0	71.0	90.2	78.8
1970	63.1	94.0	85.5	91.8	68.7	67.2	73.8	91.0
1971	70.6	90.3	84.1	88.8	79.6	78.2	84.0	93.1
1972	76.7	94.0	87.6	92.4	83.0	81.5	87.5	93.2
1973	88.4	102.1	91.5	99.4	88.9	86.6	96.5	89.7
1974	80.3	95.3	94.1	95.0	84.6	84.3	85.4	98.7
1975	76.7	87.3	93.7	88.9	86.3	87.9	81.8	107.4
1976	90.2	94.1	96.0	94.6	95.3	95.8	93.9	102.1
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	104.1	106.1	106.5	106.2	98.1	98.2	97.8	100.4
1979	98.7	107.4	114.9	109.3	90.3	91.9	85.9	107.0
1980	85.9	96.4	121.9	102.8	83.6	89.1	70.5	126.4

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TABLE VI. MANUFACTURING INDUSTRIES

19. Instruments

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	18.3	48.2	26.1	42.4	43.1	37.9	69.9	54.2
1949	17.8	43.5	26.4	38.8	45.9	40.9	67.4	60.6
1950	20.9	47.3	28.2	42.0	49.7	44.2	74.1	59.7
1951	25.6	57.6	32.2	50.8	50.3	44.4	79.5	55.8
1952	29.4	63.3	34.0	55.6	52.9	46.5	86.6	53.7
1953	32.0	68.9	35.5	60.2	53.2	46.5	90.3	51.5
1954	31.5	61.8	35.7	54.7	57.6	51.0	88.3	57.7
1955	33.5	62.7	37.9	55.9	59.9	53.3	88.2	60.4
1956	35.4	65.7	40.6	58.7	60.4	54.0	87.2	61.9
1957	34.4	65.8	41.8	59.0	58.3	52.2	82.1	63.6
1958	34.1	61.2	41.9	55.5	61.4	55.6	81.4	68.4
1959	38.3	66.8	43.6	60.1	63.7	57.3	87.8	65.3
1960	39.6	68.2	45.7	61.6	64.3	58.1	86.7	67.0
1961	38.6	67.3	47.3	61.4	62.7	57.3	81.6	70.2
1962	43.1	69.4	49.0	63.4	67.9	62.0	87.9	70.6
1963	45.1	69.4	51.2	64.0	70.5	65.0	88.1	73.8
1964	46.3	69.9	53.3	64.9	71.4	66.2	86.8	76.3
1965	53.4	74.2	56.1	68.7	77.7	72.0	95.2	75.6
1966	61.3	83.2	61.0	76.6	80.1	73.7	100.6	73.3
1967	63.2	85.9	65.5	79.7	79.3	73.6	96.5	76.3
1968	67.0	86.4	68.3	80.8	82.9	77.6	98.0	79.1
1969	74.4	89.5	72.4	84.1	88.5	83.2	102.9	80.9
1970	65.5	85.1	75.8	82.2	79.6	76.9	86.3	89.1
1971	66.0	79.5	77.5	78.9	83.7	83.1	85.2	97.5
1972	73.7	84.1	80.5	82.9	88.8	87.6	91.6	95.7
1973	84.2	91.4	85.8	89.6	94.0	92.2	98.2	93.9
1974	89.0	96.0	92.1	94.7	94.0	92.8	96.6	96.0
1975	84.9	87.3	92.6	89.0	95.5	97.3	91.8	106.0
1976	91.4	92.8	96.3	93.9	97.3	98.5	94.9	103.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	107.9	106.6	105.1	106.4	101.5	101.2	102.7	98.6
1979	112.0	112.6	109.3	111.7	100.3	99.5	102.5	97.1
1980	110.3	113.2	111.9	113.0	97.6	97.4	98.6	98.8

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TABLE VI. MANUFACTURING INDUSTRIES

20. Miscellaneous Manufactures

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948	40.2	100.1	46.6	88.1	45.7	40.2	86.4	46.5
1949	36.2	89.7	47.8	80.4	45.0	40.3	75.6	53.3
1950	41.1	95.0	52.6	85.6	48.0	43.2	78.1	55.3
1951	43.1	95.7	60.9	88.0	48.9	45.0	70.7	63.6
1952	44.1	93.4	70.1	88.3	50.0	47.3	63.0	75.1
1953	45.8	99.3	76.8	94.4	48.5	46.1	59.6	77.4
1954	43.9	90.6	79.3	88.3	49.8	48.5	55.4	87.6
1955	48.7	92.9	85.4	91.4	53.3	52.4	57.0	91.9
1956	49.0	93.6	90.9	93.2	52.5	52.3	53.9	97.1
1957	48.2	89.8	92.5	90.6	53.2	53.7	52.1	103.0
1958	47.4	86.1	92.6	87.8	54.0	55.1	51.2	107.7
1959	53.1	90.0	94.8	91.3	58.1	59.0	56.0	105.4
1960	52.1	89.4	88.2	89.4	58.3	58.3	59.1	98.6
1961	53.4	87.3	82.2	86.4	61.8	61.2	64.9	94.2
1962	55.9	89.7	79.7	87.7	63.7	62.4	70.2	88.8
1963	56.3	88.2	78.6	86.4	65.2	63.8	71.6	89.1
1964	58.6	90.0	79.1	87.9	66.7	65.2	74.1	87.9
1965	62.4	96.5	80.3	93.2	66.9	64.6	77.7	83.2
1966	67.1	101.8	86.6	98.8	67.9	65.9	77.4	85.1
1967	66.9	98.0	90.7	96.7	69.2	68.2	73.7	92.5
1968	72.1	98.1	89.9	96.6	74.7	73.5	80.2	91.7
1969	76.1	98.8	92.7	97.8	77.8	77.0	82.1	93.8
1970	73.6	95.4	93.6	95.1	77.3	77.1	78.6	98.1
1971	77.0	93.0	93.2	93.1	82.8	82.8	82.6	100.2
1972	85.1	99.2	95.1	98.5	86.5	85.8	89.6	95.9
1973	90.5	102.1	99.5	101.6	89.1	88.7	91.0	97.5
1974	87.3	101.0	102.2	101.2	86.2	86.4	85.4	101.2
1975	89.8	92.6	95.1	93.0	96.5	96.9	94.4	102.7
1976	92.5	96.5	99.6	97.0	95.4	95.9	92.9	103.2
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	100.7	104.7	103.4	104.4	96.5	96.2	97.5	98.7
1979	102.4	101.5	105.7	102.1	100.3	100.9	96.9	104.2
1980	99.2	95.3	108.8	97.5	101.7	104.1	91.2	114.1

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Table VI

S.I.C. 331 - BLAST FURNACE, BASIC STEEL PRODUCTS

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

	Output and Inputs				Productivity Ratios			
Year	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958	75.2	102.6	77.4	88.6	84.9	73.3	97.1	75.5
1959	85.9	105.1	76.2	89.4	96.1	81.7	112.7	72.5
1960	87.3	112.3	78.7	94.3	92.6	77.8	111.0	70.1
1961	83.7	104.5	79.6	90.5	92.4	80.1	105.2	76.2
1962	86.2	104.7	79.4	90.5	95.2	82.4	108.6	75.8
1963	91.4	106.4	80.1	91.8	99.5	85.9	114.1	75.3
1964	103.8	115.8	82.3	97.1	106.8	89.6	126.2	71.0
1965	113.9	120.9	84.8	100.8	113.0	94.2	134.3	70.2
1966	116.6	119.4	88.9	102.5	113.8	97.7	131.1	74.5
1967	108.7	114.7	92.7	102.5	106.1	94.8	117.3	80.8
1968	112.0	116.1	95.5	104.7	107.0	96.5	117.3	82.3
1969	115.5	118.5	97.5	106.9	108.1	97.5	118.5	82.3
1970	103.5	112.4	99.3	105.2	98.3	92.0	104.1	88.3
1971	96.2	101.8	98.5	100.1	96.1	94.5	97.7	96.8
1972	103.2	103.2	98.3	100.6	102.6	100.0	105.0	95.2
1973	124.3	112.4	96.7	104.1	119.4	110.5	128.5	86.0
1974	134.3	112.2	97.6	104.4	128.6	119.8	137.6	87.0
1975	98.3	97.3	100.5	99.0	99.3	101.0	97.8	103.3
1976	102.8	99.1	101.8	100.5	102.3	103.8	101.0	102.8
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	111.1	102.4	98.1	100.1	110.9	108.4	113.2	95.8
1979	112.2	104.1	97.0	101.4	110.7	107.8	115.7	93.1
1980	92.5	103.3	95.7	99.3	93.1	89.5	96.6	92.6

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Table VI

S.I.C. 367 - ELECTRONIC COMPONENTS

Indexes of Real Output, Inputs, and Productivity Ratios
(1967=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Factor Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958	15.7	44.2	17.3	32.3	48.7	35.6	90.8	39.2
1959	20.4	53.8	19.2	38.5	53.1	38.0	106.7	35.6
1960	21.7	58.3	21.7	42.1	51.6	37.3	100.2	37.2
1961	21.6	61.4	24.3	45.0	48.0	35.2	89.0	39.5
1962	25.8	67.1	27.8	49.7	51.9	38.5	92.8	41.5
1963	25.8	65.7	30.3	49.9	51.7	39.3	85.1	46.2
1964	27.5	66.6	33.9	51.9	53.0	41.3	81.2	50.8
1965	37.6	77.9	38.9	60.4	62.2	48.2	96.6	49.9
1966	48.7	98.7	47.0	75.6	64.4	49.3	103.6	47.6
1967	53.7	95.5	52.5	76.0	70.6	56.2	102.3	54.9
1968	52.3	95.1	56.7	77.6	67.4	54.9	92.2	59.6
1969	57.0	98.2	62.0	81.5	69.9	58.0	91.8	63.2
1970	54.0	90.7	65.6	78.7	68.7	59.6	82.3	72.4
1971	52.4	81.9	67.6	80.2	65.4	64.0	77.5	82.5
1972	64.4	89.4	70.7	80.1	80.4	72.0	91.0	79.1
1973	80.3	103.2	79.6	91.3	87.9	77.8	100.9	77.1
1974	77.4	104.4	86.6	95.4	81.1	74.2	89.4	83.0
1975	64.6	84.0	88.1	86.0	75.1	76.9	73.3	104.9
1976	82.8	91.5	93.3	92.4	89.6	90.5	88.8	101.9
1977	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1978	115.4	109.6	107.9	108.7	106.1	105.3	106.9	98.5
1979	138.3	125.4	117.8	121.6	113.8	110.3	117.4	93.9
1980	142.5	132.1	127.4	129.7	109.8	107.8	111.9	96.4

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Table VII
Quarterly Indexes of Productivity
1980, and 1981 I
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

1. Private Business Economy

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	99.6	99.3	100.5	98.8
II	98.1	98.8	96.8	102.1
III	98.2	99.2	96.4	102.9
IV	98.3	98.9	97.3	101.7
1981 I	99.2	99.8	98.0	101.8
Percent Change: (Annual Rate)				
1980 IV	0.4	-1.2	3.7	-4.8
1981 I	3.6	3.8	3.1	0.7

2. Goods Producing Sector

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	99.2	101.9	100.0	102.0
II	96.1	100.3	93.3	107.6
III	93.8	98.3	89.9	109.3
IV	96.3	100.2	94.2	106.4
1981 I	97.4	101.3	95.7	105.9
Percent Change: (Annual Rate)				
1980 IV	11.4	8.0	20.4	-10.3
1981 I	4.8	4.2	6.3	-2.0

3. Service Producing Sector

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	91.3	100.3	100.6	99.7
II	90.9	100.6	99.0	101.6
III	92.6	102.5	100.8	101.7
IV	91.1	100.7	99.3	101.4
1981 I	91.7	101.7	99.6	102.1
Percent Change: (Annual Rate)				
1980 IV	-6.2	-6.6	-5.7	-1.0
1981 I	2.7	3.6	1.2	2.4

Table VII (Cont d)
Quarterly Indexes of Productivity
1980, and 1981 I
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

4. Nonfinancial Corporate Business

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	100.8	100.0	103.5	96.6
II	99.8	99.8	99.9	99.9
III	101.3	101.5	100.9	100.6
IV	101.0	100.8	102.1	98.7
1981 I	n.a.	n.a.	n.a.	n.a.
Percent Change: (Annual Rate)				
1980 IV	-1.0	-2.9	4.8	-7.3
1981 I	n.a.	n.a.	n.a.	n.a.

5. Farming

	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980 I	111.6	115.2	108.4	106.3
II	116.6	123.9	110.3	112.3
III	100.2	105.2	95.9	109.7
IV	97.5	99.8	95.5	104.5
1981 I	98.7	101.8	95.8	106.2
Percent Change: (Annual Rate)				
1980 IV	-10.3	-19.1	-1.6	-17.8
1981 I	4.8	8.5	1.5	6.8

Table VII (Cont d)
Quarterly Indexes of Productivity
1980, and 1981 I
Multiple Input, Labor, Capital and Capital/Labor Ratio
(1977=100)

6. Manufacturing Industry

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	101.1	102.0	98.6	103.5
	II	98.3	100.7	92.0	109.4
	III	97.3	100.3	89.6	111.9
	IV	100.6	103.0	94.2	109.4
1981	I	101.1	103.5	94.7	109.2
Percent Change: (Annual Rate)					
1980	IV	14.2	11.4	21.7	-8.4
1981	I	1.8	1.6	2.5	-0.8

7. Nonfarm Nonmanufacturing Industry

		Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1980	I	98.1	97.2	100.3	96.9
	II	97.0	96.8	97.8	99.1
	III	98.5	98.4	99.0	99.4
	IV	97.3	97.0	98.2	98.8
1981	I	98.3	98.1	99.0	99.1
Percent Change: (Annual Rate)					
1980	IV	-4.6	-5.5	-3.0	-2.5
1981	I	4.0	4.4	3.2	1.1

Note: Percent changes are average annual rates of change from the previous quarter. First quarter 1981 is preliminary. All series are revised to reflect the 1977 census benchmark revisions and definitional changes. (May 22, 1981).

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	36.4	80.9	40.2	68.4	53.2	45.0	90.6	49.6
1948 II	37.3	80.5	40.6	68.2	54.7	46.4	92.0	50.4
1948 III	37.3	81.4	41.0	69.0	54.1	45.8	90.9	50.4
1948 IV	37.8	81.0	41.5	68.9	54.9	46.7	91.2	51.2
1949 I	36.9	79.8	41.3	68.0	54.2	46.2	89.2	51.8
1949 II	36.4	79.0	41.6	67.5	53.9	46.1	87.4	52.7
1949 III	36.6	77.7	41.9	66.7	54.9	47.1	87.4	54.0
1949 IV	36.1	76.5	42.2	66.0	54.7	47.2	85.7	55.1
1950 I	37.8	76.7	42.2	66.1	57.1	49.2	89.6	54.9
1950 II	39.3	78.5	42.6	67.5	58.2	50.1	92.3	54.3
1950 III	40.9	80.4	43.0	68.9	59.3	50.9	94.9	53.6
1950 IV	41.5	81.0	43.6	69.5	59.7	51.2	95.2	53.8
1951 I	41.5	81.8	43.7	70.1	59.2	50.8	95.0	53.4
1951 II	41.8	81.9	44.2	70.4	59.5	51.1	94.7	53.9
1951 III	42.5	81.0	44.7	69.9	60.8	52.5	95.2	55.1
1951 IV	42.8	81.3	45.0	70.2	61.0	52.6	95.1	55.4
1952 I	43.0	81.8	45.1	70.6	60.9	52.5	95.2	55.2
1952 II	43.1	80.7	45.5	69.9	61.7	53.5	94.9	56.4
1952 III	43.5	80.9	45.8	70.1	62.0	53.7	95.0	56.6
1952 IV	44.7	83.0	46.2	71.7	62.3	53.9	96.8	55.6
1953 I	45.5	83.4	46.2	72.1	63.1	54.5	98.3	55.4
1953 II	45.9	83.1	46.6	71.9	63.8	55.2	98.5	56.1
1953 III	45.6	82.3	46.9	71.5	63.8	55.4	97.1	57.1
1953 IV	44.8	80.9	47.2	70.6	63.5	55.4	95.0	58.3
1954 I	44.2	80.6	47.3	70.4	62.8	54.9	93.5	58.7
1954 II	44.0	79.4	47.6	69.7	63.1	55.4	92.5	59.9
1954 III	44.6	79.1	47.9	69.6	64.2	56.4	93.3	60.5
1954 IV	45.6	79.8	48.2	70.1	65.0	57.2	94.6	60.4
1955 I	46.9	81.1	48.6	71.2	65.9	57.9	96.5	60.0
1955 II	47.9	82.0	49.1	71.9	66.6	58.5	97.7	59.9
1955 III	48.7	83.3	49.5	73.0	66.7	58.4	98.3	59.4
1955 IV	49.1	84.4	49.9	73.9	66.5	58.2	98.4	59.1
1956 I	49.1	83.9	50.3	73.6	66.7	58.5	97.7	59.9
1956 II	49.4	84.3	50.6	74.0	66.7	58.6	97.5	60.1
1956 III	49.2	83.9	51.0	73.9	66.6	58.7	96.5	60.8
1956 IV	49.9	83.7	51.4	73.8	67.5	59.6	97.0	61.4

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	50.1	83.5	51.8	73.8	67.9	60.0	96.8	62.0
1957 II	50.0	83.0	52.1	73.6	68.0	60.3	96.0	62.8
1957 III	50.1	83.1	52.5	73.8	67.8	60.2	95.3	63.2
1957 IV	49.4	81.3	52.9	72.7	68.0	60.7	93.5	65.0
1958 I	48.2	79.0	53.0	71.2	67.7	61.0	90.9	67.1
1958 II	48.1	78.1	53.3	70.6	68.1	61.6	90.3	68.2
1958 III	49.3	78.8	53.5	71.2	69.2	62.5	92.0	68.0
1958 IV	50.9	80.0	53.9	72.1	70.6	63.7	94.6	67.3
1959 I	52.1	81.1	54.2	73.0	71.3	64.2	96.0	66.9
1959 II	53.4	83.0	54.7	74.4	71.8	64.3	97.7	65.8
1959 III	52.5	82.2	55.0	74.0	70.9	63.8	95.4	66.9
1959 IV	52.8	82.0	55.4	74.0	71.3	64.3	95.2	67.5
1960 I	54.1	82.1	55.9	74.2	72.9	65.9	96.8	68.1
1960 II	53.7	82.6	56.2	74.7	72.0	65.0	95.6	68.0
1960 III	53.5	82.6	56.6	74.8	71.5	64.7	94.6	68.4
1960 IV	52.9	81.6	56.8	74.2	71.3	64.8	93.1	69.6
1961 I	53.0	81.1	57.0	73.9	71.8	65.4	92.9	70.4
1961 II	54.0	80.3	57.4	73.4	73.5	67.3	94.1	71.5
1961 III	54.7	80.9	57.8	74.0	74.0	67.7	94.7	71.5
1961 IV	56.1	81.5	58.2	74.6	75.3	68.8	96.4	71.4
1962 I	56.8	82.4	58.6	75.2	75.5	69.0	97.0	71.1
1962 II	57.2	82.8	59.1	75.7	75.6	69.2	96.9	71.4
1962 III	57.8	82.3	59.6	75.5	76.5	70.2	97.0	72.4
1962 IV	58.1	81.7	60.0	75.3	77.2	71.1	96.8	73.4
1963 I	58.7	82.3	60.3	75.8	77.4	71.3	97.3	73.3
1963 II	59.7	82.8	60.8	76.3	78.3	72.1	98.2	73.5
1963 III	60.5	82.8	61.3	76.5	79.1	73.0	98.6	74.0
1963 IV	61.0	83.2	61.8	76.9	79.4	73.4	98.8	74.3
1964 I	62.2	83.2	62.2	77.0	80.9	74.8	100.0	74.8
1964 II	63.1	84.0	62.8	77.8	81.2	75.1	100.5	74.7
1964 III	64.1	84.3	63.4	78.2	82.0	76.0	101.1	75.2
1964 IV	64.8	84.9	64.0	78.7	82.3	76.3	101.4	75.3
1965 I	66.4	85.9	64.6	79.6	83.3	77.2	102.7	75.2
1965 II	67.4	87.0	65.2	80.6	83.7	77.5	103.3	75.0
1965 III	68.1	86.7	66.0	80.6	84.5	78.6	103.2	76.2
1965 IV	69.7	87.7	66.5	81.4	85.6	79.5	104.9	75.8

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	71.1	88.4	67.2	82.2	86.5	80.4	105.8	76.0
1966 II	71.3	88.8	67.9	82.7	86.2	80.2	104.9	76.5
1966 III	71.9	89.1	68.7	83.1	86.5	80.7	104.7	77.1
1966 IV	72.2	89.1	69.4	83.4	86.6	81.1	104.1	77.9
1967 I	72.2	88.9	70.1	83.4	86.5	81.2	103.0	78.9
1967 II	72.7	88.2	70.7	83.2	87.4	82.5	102.8	80.2
1967 III	73.5	88.8	71.4	83.8	87.7	82.7	103.0	80.4
1967 IV	74.5	89.3	72.1	84.3	88.3	83.5	103.4	80.7
1968 I	75.4	89.5	72.7	84.7	89.0	84.3	103.7	81.3
1968 II	76.5	90.1	73.4	85.4	89.6	84.9	104.2	81.5
1968 III	77.7	90.8	74.1	86.0	90.3	85.6	104.8	81.7
1968 IV	78.2	91.3	74.8	86.6	90.3	85.6	104.5	81.9
1969 I	79.0	92.8	75.5	87.9	89.9	85.1	104.5	81.4
1969 II	79.2	92.9	76.3	88.2	89.8	85.3	103.8	82.1
1969 III	79.5	93.2	77.1	88.7	89.6	85.2	103.1	82.7
1969 IV	79.0	92.7	77.8	88.6	89.2	85.2	101.5	83.9
1970 I	78.4	92.4	78.4	88.5	88.6	84.9	100.1	84.8
1970 II	78.5	91.5	79.0	88.2	89.1	85.8	99.4	86.3
1970 III	79.1	90.6	79.7	87.8	90.1	87.3	99.3	87.9
1970 IV	78.0	89.9	80.3	87.4	89.2	86.7	97.2	89.3
1971 I	80.0	90.3	80.9	87.9	91.0	88.6	98.9	89.6
1971 II	80.3	90.7	81.5	88.4	90.8	88.5	98.4	89.9
1971 III	81.1	90.2	82.2	88.2	91.9	89.9	98.7	91.1
1971 IV	82.1	91.4	82.7	89.3	92.0	89.8	99.3	90.5
1972 I	84.1	92.5	83.4	90.3	93.1	90.9	100.8	90.1
1972 II	85.6	93.0	84.1	90.8	94.2	91.9	101.7	90.4
1972 III	86.5	93.7	84.8	91.5	94.6	92.4	102.0	90.6
1972 IV	88.7	94.6	85.6	92.4	96.1	93.8	103.7	90.5
1973 I	91.6	95.9	86.4	93.5	97.9	95.5	106.0	90.1
1973 II	91.7	96.9	87.3	94.5	97.1	94.7	105.0	90.2
1973 III	91.9	97.4	88.3	95.2	96.5	94.3	104.1	90.6
1973 IV	92.6	97.9	89.2	95.8	96.7	94.6	103.9	91.1
1974 I	91.2	98.1	90.0	96.1	94.8	93.0	101.4	91.8
1974 II	91.0	97.8	90.8	96.2	94.6	93.1	100.2	92.8
1974 III	90.1	97.4	91.5	96.2	93.7	92.5	98.4	94.0
1974 IV	88.6	96.0	92.3	95.5	92.8	92.3	96.1	96.1

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

1. Private Business Economy

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	86.0	93.2	92.7	93.7	91.8	92.3	92.8	99.5
1975 II	87.5	92.4	93.1	93.3	93.8	94.7	94.0	100.8
1975 III	89.8	93.5	93.7	94.2	95.3	96.1	95.9	100.2
1975 IV	90.7	94.8	94.2	95.3	95.2	95.7	96.3	99.4
1976 I	93.3	95.9	94.8	96.2	96.9	97.3	98.4	98.9
1976 II	93.8	96.0	95.5	96.6	97.2	97.7	98.3	99.4
1976 III	94.4	96.3	96.2	96.9	97.4	98.0	98.1	99.9
1976 IV	95.0	96.8	96.8	97.5	97.4	98.1	98.1	100.0
1977 I	97.5	98.0	97.6	98.5	99.0	99.5	99.9	99.6
1977 II	99.3	99.9	98.4	99.8	99.6	99.4	101.0	98.4
1977 III	101.3	100.6	99.2	100.4	100.9	100.7	102.0	98.7
1977 IV	101.9	101.7	100.0	101.2	100.7	100.2	101.9	98.3
1978 I	102.3	102.7	100.8	102.1	100.1	99.6	101.4	98.2
1978 II	104.6	104.8	101.8	103.9	100.7	99.9	102.8	97.2
1978 III	105.3	105.4	102.7	104.6	100.7	100.0	102.5	97.5
1978 IV	106.7	106.8	103.7	105.9	100.8	99.9	102.9	97.1
1979 I	107.7	108.1	104.6	107.0	100.6	99.7	103.0	96.8
1979 II	107.1	107.5	105.6	107.0	100.1	99.6	101.4	98.2
1979 III	107.7	108.6	106.5	108.0	99.8	99.2	101.1	98.1
1979 IV	108.2	109.3	107.3	108.8	99.5	99.0	100.8	98.2
1980 I	108.7	109.5	108.2	109.1	99.6	99.3	100.5	98.8
1980 II	105.4	106.7	108.9	107.5	98.1	98.8	96.8	102.1
1980 III	105.7	106.5	109.6	107.6	98.2	99.2	96.4	102.9
1980 IV	107.5	108.7	110.5	109.3	98.3	98.9	97.3	101.7
1981 I	109.3	109.5	111.5	110.2	99.2	99.8	98.0	101.8

May 22, 1981

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958 I	51.9	90.4	63.8	89.0	58.3	57.4	81.3	70.6
1958 II	51.0	89.1	64.0	88.2	57.8	57.2	79.6	71.8
1958 III	53.0	89.7	64.2	88.7	59.7	59.1	82.5	71.6
1958 IV	55.1	91.7	64.5	90.2	61.1	60.1	85.4	70.4
1959 I	57.0	93.4	65.0	91.5	62.3	61.0	87.7	69.6
1959 II	58.9	97.2	65.4	94.3	62.5	60.7	90.1	67.3
1959 III	56.6	94.2	65.6	92.4	61.3	60.1	86.2	69.7
1959 IV	56.8	93.7	66.1	92.2	61.6	60.6	86.0	70.5
1960 I	59.7	93.5	66.6	92.2	64.7	63.8	89.7	71.2
1960 II	58.6	94.3	66.8	92.9	63.0	62.1	87.7	70.8
1960 III	57.3	94.1	67.0	92.8	61.8	60.9	85.5	71.3
1960 IV	56.3	91.4	67.2	90.8	62.0	61.6	83.9	73.5
1961 I	55.9	90.6	67.1	90.2	62.0	61.7	83.3	74.1
1961 II	57.6	89.2	67.4	89.2	64.6	64.6	85.4	75.6
1961 III	58.7	90.6	67.7	90.4	65.0	64.8	86.7	74.8
1961 IV	60.2	91.5	68.1	91.2	66.0	65.8	88.4	74.4
1962 I	60.6	92.7	68.2	92.1	65.8	65.4	88.9	73.6
1962 II	61.9	92.9	68.6	92.4	67.0	66.7	90.2	73.9
1962 III	62.2	92.4	69.1	92.2	67.4	67.3	90.0	74.8
1962 IV	62.7	91.7	69.4	91.8	68.4	68.4	90.4	75.7
1963 I	63.8	91.8	69.5	91.9	69.4	69.5	91.8	75.6
1963 II	66.0	93.0	70.0	92.9	71.1	71.0	94.4	75.3
1963 III	66.5	92.7	70.4	92.8	71.7	71.8	94.6	75.9
1963 IV	67.7	92.4	70.7	92.7	73.0	73.3	95.8	76.5
1964 I	68.4	91.3	70.9	91.9	74.4	74.9	96.4	77.7
1964 II	69.4	93.5	71.3	93.7	74.1	74.3	97.3	76.3
1964 III	70.4	93.7	71.8	94.1	74.8	75.1	97.9	76.6
1964 IV	70.8	94.0	72.5	94.5	75.0	75.3	97.8	77.1
1965 I	73.3	95.3	73.1	95.6	76.7	77.0	100.4	76.7
1965 II	74.5	96.6	73.5	96.8	76.9	77.1	101.3	76.1
1965 III	75.8	96.4	74.1	96.8	78.3	78.7	102.4	76.8
1965 IV	76.8	98.4	74.6	98.5	78.0	78.1	103.0	75.8
1966 I	78.9	99.5	75.2	99.6	79.2	79.3	104.9	75.5
1966 II	79.0	99.7	75.9	99.9	79.1	79.3	104.1	76.2
1966 III	79.3	99.7	76.7	100.1	79.2	79.6	103.4	76.9
1966 IV	79.0	99.9	77.4	100.5	78.6	79.1	102.1	77.5

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1967 I	78.3	99.2	78.2	100.3	78.1	78.9	100.1	78.8
1967 II	78.1	97.3	78.9	97.3	80.3	80.2	99.0	81.0
1967 III	78.9	98.4	79.5	97.0	81.3	80.1	99.2	80.8
1967 IV	81.0	98.8	80.1	96.5	84.0	82.0	101.2	81.1
1968 I	81.8	98.4	80.6	95.6	85.6	83.2	101.5	81.9
1968 II	82.7	99.1	81.1	96.3	85.8	83.4	101.9	81.8
1968 III	83.3	99.5	81.7	96.8	86.0	83.7	101.9	82.1
1968 IV	84.2	99.9	82.2	97.2	86.6	84.3	102.5	82.2
1969 I	85.3	102.1	82.8	99.0	86.2	83.5	103.1	81.0
1969 II	85.0	101.2	83.3	98.5	86.3	83.9	102.0	82.3
1969 III	85.5	101.1	83.9	98.6	86.7	84.6	102.0	82.9
1969 IV	84.4	100.0	84.3	97.9	86.2	84.3	100.1	84.3
1970 I	82.3	98.6	84.6	97.0	84.8	83.4	97.2	85.8
1970 II	81.6	97.2	85.1	96.0	84.9	83.9	95.9	87.5
1970 III	81.1	94.8	85.4	94.4	85.9	85.5	94.9	90.1
1970 IV	80.6	92.4	85.8	92.7	87.0	87.2	94.0	92.8
1971 I	82.8	92.8	86.1	93.1	89.0	89.2	96.2	92.8
1971 II	83.8	93.4	86.4	93.6	89.5	89.7	97.0	92.5
1971 III	84.0	92.4	86.6	92.9	90.4	90.9	97.0	93.7
1971 IV	85.2	93.9	86.8	94.1	90.5	90.7	98.1	92.4
1972 I	87.7	95.6	87.1	95.4	91.9	91.7	100.7	91.1
1972 II	89.3	96.2	87.5	96.0	93.0	92.8	102.0	90.9
1972 III	89.6	97.2	88.0	96.8	92.5	92.2	101.9	90.5
1972 IV	93.4	98.3	88.3	97.7	95.5	95.0	105.7	89.9
1973 I	97.0	99.8	88.8	99.0	98.0	97.2	109.2	89.0
1973 II	97.5	101.0	89.4	100.1	97.4	96.5	109.0	88.5
1973 III	97.7	101.4	90.1	100.6	97.1	96.4	108.4	88.9
1973 IV	97.6	102.3	90.9	101.5	96.2	95.4	107.4	88.8
1974 I	94.2	102.9	91.6	102.1	92.2	91.5	102.8	89.0
1974 II	94.4	100.7	92.3	100.6	93.8	93.8	102.2	91.7
1974 III	93.8	99.6	93.1	100.1	93.8	94.2	100.8	93.5
1974 IV	89.7	96.9	93.9	98.2	91.3	92.6	95.5	96.9
1975 I	83.3	91.4	94.3	94.3	88.3	91.1	88.3	103.2
1975 II	85.1	89.6	94.6	93.0	91.5	95.0	89.9	105.6
1975 III	89.7	91.2	95.0	94.3	95.0	98.3	94.4	104.1
1975 IV	91.1	92.5	95.4	95.4	95.5	98.5	95.5	103.1

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

2. Goods Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1976 I	93.3	94.1	95.9	96.8	96.4	99.1	97.3	101.8
1976 II	93.7	94.3	96.4	97.1	96.5	99.3	97.1	102.2
1976 III	94.1	94.3	97.1	97.2	96.8	99.8	97.0	102.9
1976 IV	96.0	94.7	97.6	97.7	98.3	101.3	98.3	103.1
1977 I	97.2	96.1	98.3	98.9	98.3	101.2	98.9	102.3
1977 II	99.6	98.6	99.0	101.0	98.7	101.0	100.7	100.4
1977 III	101.5	98.7	99.8	101.2	100.3	102.9	101.7	101.1
1977 IV	101.7	100.0	100.4	102.4	99.3	101.7	101.3	100.4
1978 I	101.7	100.4	101.1	102.9	98.9	101.3	100.6	100.7
1978 II	104.5	103.4	102.1	105.4	99.2	101.1	102.4	98.7
1978 III	106.2	104.4	103.0	106.4	99.8	101.7	103.1	98.6
1978 IV	107.5	105.7	103.8	107.6	99.9	101.7	103.6	98.2
1979 I	108.0	106.9	104.8	108.8	99.3	101.0	103.0	98.1
1979 II	107.8	105.2	105.9	107.8	100.0	102.4	101.8	100.6
1979 III	107.9	106.1	106.8	108.7	99.2	101.7	101.0	100.6
1979 IV	108.0	106.5	107.6	109.3	98.8	101.4	100.3	101.1
1980 I	108.6	106.5	108.6	109.5	99.2	101.9	100.0	102.0
1980 II	101.9	101.6	109.3	106.0	96.1	100.3	93.3	107.6
1980 III	98.7	100.4	109.8	105.3	93.8	98.3	89.9	109.3
1980 IV	103.9	103.6	110.3	107.8	96.3	100.2	94.2	106.4
1981 I	106.2	104.8	111.0	108.9	97.4	101.3	95.7	105.9

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1958 I	45.6	68.5	47.6	81.2	56.1	66.5	95.8	69.4
1958 II	46.1	67.8	47.9	80.7	57.1	67.9	96.2	70.6
1958 III	46.6	68.7	48.2	81.6	57.1	67.9	96.8	70.2
1958 IV	48.0	69.3	48.5	82.3	58.3	69.2	98.9	70.0
1959 I	48.5	69.9	48.8	82.9	58.5	69.5	99.5	69.9
1959 II	49.5	70.4	49.2	83.6	59.2	70.3	100.6	69.9
1959 III	49.6	71.2	49.6	84.5	58.6	69.6	99.8	69.7
1959 IV	49.9	71.2	50.0	84.7	58.9	70.1	99.8	70.2
1960 I	50.1	71.5	50.5	85.1	58.8	70.1	99.2	70.6
1960 II	50.3	71.8	50.9	85.6	58.8	70.1	98.8	70.9
1960 III	50.8	72.0	51.3	86.0	59.1	70.6	99.0	71.2
1960 IV	50.5	72.2	51.6	86.3	58.5	70.0	97.8	71.5
1961 I	51.0	71.8	52.0	86.2	59.1	70.9	98.0	72.4
1961 II	51.5	71.5	52.4	86.1	59.7	71.9	98.2	73.2
1961 III	51.9	71.5	52.8	86.4	60.1	72.6	98.2	73.9
1961 IV	53.2	72.0	53.2	87.0	61.2	73.9	100.0	74.0
1962 I	54.1	72.5	53.7	87.6	61.7	74.6	100.7	74.1
1962 II	53.9	73.0	54.2	88.3	61.0	73.8	99.4	74.3
1962 III	54.7	72.7	54.8	88.3	61.9	75.2	99.8	75.4
1962 IV	54.8	72.2	55.3	88.1	62.2	75.9	99.2	76.5
1963 I	55.0	73.1	55.7	89.1	61.8	75.3	98.8	76.3
1963 II	55.2	73.1	56.2	89.4	61.8	75.6	98.2	77.0
1963 III	56.2	73.3	56.8	89.8	62.6	76.7	99.0	77.5
1963 IV	56.3	74.1	57.3	90.8	62.0	76.0	98.2	77.4
1964 I	57.9	74.9	57.9	91.7	63.1	77.3	100.0	77.3
1964 II	58.6	74.8	58.5	92.0	63.7	78.4	100.2	78.3
1964 III	59.7	75.1	59.2	92.6	64.4	79.4	100.8	78.7
1964 IV	60.6	75.9	59.7	93.5	64.8	79.8	101.5	78.7
1965 I	61.4	76.7	60.4	94.5	65.0	80.1	101.7	78.8
1965 II	62.4	77.5	61.1	95.5	65.3	80.5	102.1	78.8
1965 III	62.6	77.1	62.0	95.7	65.5	81.2	101.0	80.4
1965 IV	64.7	77.4	62.5	96.1	67.3	83.6	103.6	80.7
1966 I	65.5	77.8	63.2	96.8	67.7	84.2	103.8	81.2
1966 II	65.8	78.5	64.0	97.8	67.3	83.9	102.9	81.5
1966 III	66.6	78.9	64.7	98.5	67.7	84.5	103.0	82.0
1966 IV	67.4	78.7	65.4	98.8	68.3	85.6	103.0	83.1

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1967 I	67.8	78.8	66.0	99.1	68.4	86.0	102.7	83.8
1967 II	68.9	79.0	66.7	91.9	75.0	87.2	103.4	84.3
1967 III	69.7	79.3	67.4	87.7	79.5	87.9	103.5	84.9
1967 IV	69.9	79.8	68.1	85.1	82.1	87.5	102.7	85.3
1968 I	70.9	80.4	68.8	83.6	84.8	88.1	103.0	85.5
1968 II	72.1	81.0	69.6	84.3	85.5	89.0	103.6	85.9
1968 III	73.7	81.8	70.4	85.2	86.5	90.1	104.7	86.0
1968 IV	74.0	82.5	71.2	86.0	86.0	89.7	103.9	86.3
1969 I	74.4	83.3	72.0	86.9	85.7	89.3	103.4	86.4
1969 II	75.2	84.2	72.9	87.9	85.6	89.3	103.2	86.5
1969 III	75.2	84.9	73.8	88.7	84.8	88.6	101.9	86.9
1969 IV	75.1	84.8	74.6	88.9	84.5	88.6	100.7	88.0
1970 I	75.7	85.3	75.3	89.6	84.5	88.8	100.5	88.3
1970 II	76.4	84.8	76.1	89.6	85.2	90.0	100.4	89.7
1970 III	77.7	85.0	76.9	90.1	86.2	91.4	101.0	90.5
1970 IV	76.1	85.5	77.6	90.7	83.9	89.0	98.1	90.7
1971 I	78.0	85.9	78.4	91.3	85.4	90.8	99.5	91.3
1971 II	77.8	86.1	79.2	91.8	84.7	90.3	98.2	91.9
1971 III	79.0	85.9	80.0	92.0	85.9	91.9	98.7	93.2
1971 IV	79.9	87.0	80.8	93.1	85.9	91.9	98.9	92.9
1972 I	81.5	87.7	81.6	93.9	86.8	93.0	99.8	93.1
1972 II	82.9	88.1	82.5	94.5	87.7	94.1	100.5	93.7
1972 III	84.3	88.4	83.4	95.1	88.7	95.4	101.2	94.3
1972 IV	85.4	89.2	84.3	96.0	88.9	95.7	101.3	94.5
1973 I	87.8	90.4	85.3	97.3	90.3	97.1	102.9	94.4
1973 II	87.6	91.1	86.4	98.2	89.2	96.2	101.3	94.9
1973 III	87.7	91.8	87.5	99.1	88.5	95.6	100.3	95.3
1973 IV	88.8	91.9	88.5	99.6	89.2	96.7	100.4	96.3
1974 I	89.1	91.7	89.3	99.8	89.2	97.1	99.7	97.3
1974 II	88.5	92.9	90.2	101.0	87.7	95.4	98.3	97.0
1974 III	87.5	93.0	90.9	101.4	86.3	94.0	96.2	97.7
1974 IV	87.9	92.7	91.6	101.5	86.7	94.9	95.9	98.9
1975 I	87.9	91.8	92.0	101.0	87.0	95.7	95.5	100.2
1975 II	89.2	91.7	92.5	101.2	88.2	97.2	96.4	100.9
1975 III	89.9	92.5	93.2	102.0	88.2	97.3	96.5	100.8
1975 IV	90.4	93.7	93.7	103.1	87.8	96.5	96.5	100.0

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

3. Service Producing Sector

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1976 I	93.3	94.4	94.4	103.8	89.8	98.8	98.8	100.0
1976 II	93.9	94.5	95.2	104.2	90.1	99.4	98.7	100.7
1976 III	94.6	95.0	95.9	104.8	90.2	99.6	98.6	101.0
1976 IV	94.2	95.6	96.6	105.5	89.3	98.6	97.6	101.0
1977 I	97.6	96.6	97.4	106.5	91.7	101.1	100.3	100.9
1977 II	99.1	98.0	98.2	107.9	91.9	101.1	100.9	100.2
1977 III	101.1	99.1	99.2	109.0	92.8	102.0	101.9	100.1
1977 IV	102.1	100.0	100.0	110.0	92.9	102.1	102.1	100.0
1978 I	102.7	101.3	100.9	111.2	92.3	101.3	101.8	99.6
1978 II	104.7	102.7	101.9	112.6	93.0	101.9	102.8	99.2
1978 III	104.7	103.0	102.8	113.2	92.5	101.6	101.8	99.8
1978 IV	106.0	104.5	103.8	114.6	92.5	101.4	102.1	99.3
1979 I	107.5	105.8	104.7	115.9	92.8	101.6	102.7	98.9
1979 II	106.6	106.1	105.7	116.5	91.5	100.5	100.9	99.6
1979 III	107.6	107.2	106.6	117.6	91.5	100.4	101.0	99.4
1979 IV	108.2	107.9	107.4	118.5	91.3	100.2	100.7	99.5
1980 I	108.8	108.5	108.2	119.1	91.3	100.3	100.6	99.7
1980 II	107.9	107.3	109.0	118.7	90.9	100.6	99.0	101.6
1980 III	110.6	107.9	109.8	119.5	92.6	102.5	100.8	101.7
1980 IV	110.0	109.2	110.8	120.7	91.1	100.7	99.3	101.4
1981 I	111.6	109.8	112.1	121.7	91.7	101.7	99.6	102.1

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	28.4	61.3	31.7	53.3	53.3	46.4	89.8	51.6
1948 II	28.8	60.8	32.0	53.0	54.4	47.5	90.2	52.7
1948 III	28.7	61.3	32.3	53.5	53.7	46.9	88.9	52.7
1948 IV	29.0	60.6	32.6	53.1	54.5	47.8	88.8	53.8
1949 I	28.2	59.1	32.9	52.2	54.1	47.7	85.8	55.6
1949 II	27.5	57.6	33.1	51.1	53.9	47.8	83.3	57.4
1949 III	27.6	56.8	33.2	50.6	54.5	48.6	83.1	58.4
1949 IV	26.8	55.9	33.3	50.0	53.6	47.9	80.5	59.5
1950 I	28.4	56.8	33.5	50.7	56.1	50.0	84.8	58.9
1950 II	30.2	59.1	33.8	52.4	57.7	51.2	89.6	57.1
1950 III	32.0	61.6	34.1	54.2	59.0	52.0	93.9	55.3
1950 IV	33.1	62.9	34.6	55.4	59.8	52.6	95.9	54.9
1951 I	33.5	63.9	35.0	56.2	59.5	52.3	95.7	54.7
1951 II	33.8	64.3	35.5	56.7	59.6	52.5	95.1	55.2
1951 III	33.9	63.7	36.0	56.3	60.2	53.3	94.4	56.4
1951 IV	34.2	63.7	36.3	56.4	60.6	53.6	94.2	56.9
1952 I	34.2	64.6	36.6	57.2	59.9	53.0	93.4	56.7
1952 II	33.8	63.9	36.9	56.7	59.5	52.9	91.5	57.8
1952 III	34.0	64.3	37.2	57.2	59.5	52.9	91.5	57.8
1952 IV	35.8	66.4	37.5	58.7	60.9	53.9	95.5	56.5
1953 I	36.7	67.2	37.8	59.4	61.7	54.6	96.9	56.3
1953 II	37.1	67.5	38.2	59.7	62.2	55.0	97.2	56.6
1953 III	36.9	66.6	38.5	59.2	62.4	55.4	95.8	57.8
1953 IV	35.5	65.2	38.7	58.3	61.0	54.4	91.8	59.3
1954 I	35.1	63.7	38.9	57.2	61.4	55.1	90.2	61.1
1954 II	35.0	62.8	39.1	56.7	61.8	55.7	89.4	62.3
1954 III	35.4	62.3	39.4	56.4	62.7	56.8	89.8	63.2
1954 IV	36.4	63.1	39.6	57.0	63.8	57.7	91.9	62.7
1955 I	38.2	64.4	39.9	58.0	65.8	59.3	95.7	62.0
1955 II	39.4	65.7	40.3	59.1	66.6	59.9	97.8	61.2
1955 III	39.9	66.5	40.7	59.8	66.7	59.9	97.9	61.2
1955 IV	40.4	67.4	41.2	60.5	66.7	60.0	98.0	61.2
1956 I	40.4	67.5	41.6	60.8	66.4	59.8	97.0	61.7
1956 II	40.5	67.5	42.1	60.9	66.5	60.0	96.3	62.3
1956 III	40.3	67.0	42.5	60.7	66.4	60.1	94.7	63.4
1956 IV	40.9	67.9	42.9	61.4	66.7	60.3	95.5	63.2

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	41.4	67.8	43.2	61.4	67.4	61.1	95.7	63.8
1957 II	41.4	67.2	43.6	61.2	67.7	61.6	95.0	64.9
1957 III	41.2	66.8	44.0	61.0	67.6	61.7	93.7	65.9
1957 IV	40.3	65.2	44.2	59.9	67.2	61.7	91.0	67.9
1958 I	38.5	63.3	44.4	58.6	65.7	60.8	86.7	70.1
1958 II	38.1	61.8	44.5	57.6	66.1	61.6	85.6	72.0
1958 III	39.3	62.6	44.7	58.2	67.5	62.7	87.9	71.3
1958 IV	40.9	63.8	44.9	59.1	69.3	64.2	91.2	70.4
1959 I	42.8	66.0	45.1	60.7	70.4	64.8	94.8	68.4
1959 II	44.3	67.5	45.5	61.9	71.5	65.6	97.3	67.5
1959 III	43.3	66.9	45.8	61.6	70.3	64.7	94.6	68.4
1959 IV	43.6	66.8	46.1	61.6	70.7	65.2	94.5	69.0
1960 I	45.5	68.5	46.6	63.0	72.2	66.4	97.6	68.0
1960 II	45.2	68.2	47.0	62.9	71.9	66.3	96.3	68.8
1960 III	44.5	67.6	47.3	62.5	71.3	65.9	94.3	70.0
1960 IV	44.2	66.2	47.4	61.6	71.8	66.8	93.2	71.6
1961 I	44.2	66.1	47.7	61.5	71.9	66.9	92.8	72.1
1961 II	45.3	66.4	48.0	61.9	73.2	68.2	94.5	72.2
1961 III	46.3	67.2	48.3	62.5	74.1	69.0	96.0	71.9
1961 IV	48.0	68.0	48.6	63.2	76.0	70.6	98.8	71.5
1962 I	49.1	68.9	49.4	64.1	76.6	71.3	99.4	71.7
1962 II	49.6	69.8	50.1	65.0	76.4	71.0	98.9	71.8
1962 III	50.4	69.9	50.8	65.2	77.3	72.1	99.2	72.7
1962 IV	51.0	69.7	51.3	65.2	78.2	73.2	99.4	73.6
1963 I	51.8	70.5	51.8	65.9	78.5	73.4	99.9	73.5
1963 II	53.1	71.2	52.4	66.6	79.7	74.5	101.3	73.6
1963 III	54.0	71.5	53.2	67.0	80.6	75.5	101.6	74.3
1963 IV	54.5	71.7	53.7	67.4	80.9	76.0	101.5	74.9
1964 I	55.9	72.5	54.4	68.1	82.0	77.1	102.8	75.0
1964 II	56.7	73.3	55.1	68.9	82.2	77.3	102.8	75.2
1964 III	57.5	73.8	55.9	69.5	82.8	77.9	102.9	75.7
1964 IV	58.1	74.5	56.7	70.3	82.6	77.9	102.4	76.1
1965 I	60.3	76.4	57.7	71.9	83.9	79.0	104.5	75.6
1965 II	61.5	77.1	58.6	72.7	84.6	79.8	104.8	76.1
1965 III	62.2	77.7	59.8	73.4	84.7	80.0	104.0	76.9
1965 IV	64.0	78.9	60.6	74.6	85.8	81.1	105.6	76.7

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	65.5	80.9	61.8	76.3	85.8	81.0	106.0	76.5
1966 II	66.2	81.7	63.3	77.3	85.6	81.1	104.7	77.5
1966 III	66.8	82.2	64.7	78.1	85.5	81.2	103.3	78.7
1966 IV	67.2	82.5	66.4	78.9	85.2	81.4	101.2	80.4
1967 I	67.1	82.9	67.7	79.5	84.4	80.9	99.0	81.8
1967 II	67.4	82.4	68.6	79.4	85.0	81.9	98.3	83.3
1967 III	68.2	82.8	69.7	80.0	85.2	82.3	97.8	84.1
1967 IV	69.2	83.3	70.7	80.7	85.8	83.0	97.9	84.8
1968 I	70.4	84.4	71.6	81.7	86.2	83.5	98.4	84.8
1968 II	71.9	85.1	72.8	82.6	87.0	84.4	98.7	85.5
1968 III	73.2	85.9	73.7	83.4	87.8	85.2	99.3	85.8
1968 IV	74.3	86.4	74.5	84.0	88.4	86.0	99.7	86.2
1969 I	74.9	88.1	75.5	85.5	87.6	85.0	99.2	85.7
1969 II	75.5	88.8	76.7	86.4	87.4	85.0	98.5	86.4
1969 III	76.1	89.3	77.7	87.0	87.4	85.1	97.9	86.9
1969 IV	75.9	89.2	78.4	87.1	87.1	85.1	96.8	87.9
1970 I	75.0	89.6	79.2	87.7	85.5	83.7	94.7	88.4
1970 II	75.1	88.4	79.9	87.0	86.3	84.9	93.9	90.4
1970 III	75.7	87.6	80.6	86.5	87.5	86.5	94.0	92.0
1970 IV	74.4	86.1	81.1	85.5	86.9	86.4	91.7	94.2
1971 I	77.1	87.4	81.5	86.6	89.0	88.2	94.6	93.2
1971 II	77.8	87.6	82.2	87.0	89.4	88.8	94.6	93.8
1971 III	78.7	87.4	82.8	87.0	90.5	90.1	95.0	94.8
1971 IV	80.2	88.3	83.4	87.8	91.4	90.8	96.2	94.4
1972 I	82.4	90.7	84.2	89.8	91.8	90.9	97.9	92.8
1972 II	84.0	91.8	85.2	90.9	92.5	91.5	98.6	92.8
1972 III	85.2	92.3	86.3	91.5	93.1	92.4	98.8	93.5
1972 IV	87.7	93.8	86.8	92.8	94.6	93.6	101.1	92.5
1973 I	91.0	95.8	87.6	94.5	96.3	95.0	103.9	91.4
1973 II	91.5	96.7	88.3	95.4	96.0	94.6	103.6	91.3
1973 III	91.9	97.1	89.3	95.9	95.8	94.6	102.9	91.9
1973 IV	92.0	97.9	90.3	96.8	95.1	94.0	101.9	92.2
1974 I	90.6	98.0	90.4	96.9	93.5	92.4	100.2	92.2
1974 II	89.4	97.6	91.0	96.8	92.4	91.6	98.2	93.2
1974 III	88.1	97.4	91.4	96.7	91.0	90.4	96.3	93.8
1974 IV	86.5	95.4	92.5	95.5	90.6	90.7	93.5	97.0

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

4. Nonfinancial Corporate Business

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	83.9	92.0	92.5	93.0	90.3	91.2	90.7	100.6
1975 II	85.5	90.8	92.5	92.1	92.9	94.2	92.5	101.8
1975 III	88.4	92.0	92.5	93.0	95.0	96.1	95.5	100.6
1975 IV	89.7	93.2	92.7	93.9	95.5	96.3	96.7	99.5
1976 I	92.4	95.?	93.6	95.7	96.6	97.1	98.7	98.3
1976 II	92.9	95.6	94.6	96.2	96.6	97.2	98.2	99.0
1976 III	93.7	95.9	95.3	96.7	97.0	97.7	98.3	99.4
1976 IV	94.2	96.5	95.8	97.2	96.9	97.6	98.3	99.3
1977 I	96.9	97.9	96.8	98.4	98.4	98.9	100.1	98.8
1977 II	99.3	99.6	98.0	99.6	99.7	99.7	101.4	98.4
1977 III	101.4	100.5	99.3	100.4	101.0	100.9	102.1	98.9
1977 IV	102.4	101.6	100.0	101.4	101.1	100.8	102.4	98.4
1978 I	102.9	102.6	101.0	102.3	100.5	100.2	101.8	98.5
1978 II	105.9	105.1	102.3	104.4	101.4	100.8	103.5	97.4
1978 III	106.4	105.9	103.3	105.3	101.0	100.4	103.0	97.5
1978 IV	108.0	107.5	103.9	106.6	101.3	100.5	104.0	96.7
1979 I	109.5	108.9	104.6	107.8	101.5	100.6	104.6	96.1
1979 II	109.0	108.4	105.9	107.8	101.1	100.6	102.9	97.7
1979 III	109.4	109.1	106.1	108.4	100.9	100.3	103.2	97.2
1979 IV	109.3	109.7	105.9	108.8	100.5	99.7	103.2	96.5
1980 I	109.9	110.0	106.2	109.1	100.8	100.0	103.5	96.6
1980 II	106.8	107.0	106.9	107.0	99.8	99.8	99.9	99.9
1980 III	107.7	106.1	106.7	106.3	101.3	101.5	100.9	100.6
1980 IV	108.5	107.7	106.3	107.5	101.0	100.8	102.1	98.7

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	69.7	312.7	69.1	206.8	33.7	22.3	100.9	22.1
1948 II	77.8	308.1	70.1	204.7	38.0	25.3	111.1	22.7
1948 III	74.5	316.7	71.5	210.2	35.5	23.5	104.2	22.6
1948 IV	80.9	319.7	72.9	212.5	38.1	25.3	110.9	22.8
1949 I	72.3	316.2	70.1	209.3	34.5	22.9	103.1	22.2
1949 II	73.4	325.9	71.3	215.3	34.1	22.5	102.9	21.9
1949 III	75.2	311.4	72.3	207.5	36.2	24.1	104.0	23.2
1949 IV	76.7	293.2	73.4	197.7	38.8	26.2	104.5	25.0
1950 I	81.2	288.7	71.3	194.3	41.8	28.1	113.9	24.7
1950 II	78.1	290.6	72.7	196.0	39.9	26.9	107.5	25.0
1950 III	76.7	286.5	74.2	194.3	39.5	26.8	103.3	25.9
1950 IV	78.0	287.2	75.4	195.2	40.0	27.2	103.5	26.3
1951 I	69.6	278.6	73.7	189.6	36.7	25.0	94.5	26.5
1951 II	73.3	271.6	74.6	186.1	39.4	27.0	98.1	27.5
1951 III	79.0	268.5	75.7	184.8	42.8	29.4	104.4	28.2
1951 IV	76.5	273.7	76.7	188.1	40.7	28.0	99.8	28.0
1952 I	74.1	272.3	75.3	186.8	39.7	27.2	98.4	27.7
1952 II	76.9	257.6	76.5	179.0	43.0	29.9	100.6	29.7
1952 III	80.8	253.6	77.0	176.9	45.6	31.8	104.9	30.4
1952 IV	74.3	255.4	78.0	178.4	41.6	29.1	95.1	30.6
1953 I	78.9	249.8	76.7	174.7	45.2	31.6	102.9	30.7
1953 II	80.6	239.9	77.2	169.3	47.6	33.6	104.4	32.2
1953 III	79.8	239.3	77.9	169.3	47.2	33.4	102.5	32.6
1953 IV	82.6	232.1	78.5	165.5	49.9	35.6	105.1	33.8
1954 I	80.7	244.3	77.5	171.9	47.0	33.0	104.1	31.7
1954 II	79.0	232.8	77.8	165.5	47.7	33.9	101.6	33.4
1954 III	84.5	232.6	78.5	165.7	51.0	36.3	107.6	33.7
1954 IV	85.4	224.3	79.3	161.4	52.9	38.1	107.7	35.3
1955 I	82.8	229.7	80.4	164.9	50.2	36.1	103.0	35.0
1955 II	83.6	230.7	80.9	165.7	50.4	36.2	103.3	35.1
1955 III	85.2	243.7	81.3	173.2	49.2	35.0	104.8	33.4
1955 IV	88.0	245.2	81.6	174.2	50.5	35.9	107.8	33.3
1956 I	86.7	227.3	81.6	164.1	52.8	38.1	106.2	35.9
1956 II	80.4	231.4	81.5	166.3	48.3	34.8	98.7	35.2
1956 III	83.2	230.6	81.8	166.0	50.1	36.1	101.7	35.5
1956 IV	84.5	214.3	82.1	156.9	53.9	39.4	103.0	38.3

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	82.7	211.1	82.5	155.3	53.3	39.2	100.3	39.1
1957 II	81.7	205.2	82.3	151.9	53.8	39.8	99.4	40.1
1957 III	80.3	211.6	82.6	155.6	51.6	37.9	97.2	39.0
1957 IV	81.2	203.8	83.2	151.5	53.6	39.8	97.6	40.8
1958 I	85.4	190.9	82.8	144.0	59.3	44.7	103.1	43.4
1958 II	83.8	195.9	83.2	147.1	57.0	42.8	100.7	42.5
1958 III	84.8	190.7	83.5	144.2	58.8	44.5	101.6	43.8
1958 IV	86.2	193.2	83.9	145.8	59.1	44.6	102.7	43.4
1959 I	83.4	190.6	84.7	144.7	57.6	43.8	98.5	44.4
1959 II	80.2	204.4	85.0	152.6	52.5	39.2	94.3	41.6
1959 III	77.0	189.9	85.2	144.5	53.3	40.6	90.4	44.9
1959 IV	81.4	187.2	85.5	143.1	56.8	43.5	95.2	45.7
1960 I	81.3	173.9	86.2	135.6	59.9	46.7	94.4	49.5
1960 II	83.8	186.3	86.1	142.8	58.7	45.0	97.3	46.2
1960 III	87.6	194.5	86.3	147.7	59.3	45.0	101.6	44.3
1960 IV	87.5	190.2	86.4	145.2	60.3	46.0	101.3	45.4
1961 I	87.0	188.7	85.8	144.1	60.4	46.1	101.4	45.5
1961 II	84.6	170.3	86.1	133.5	63.3	49.7	98.2	50.6
1961 III	83.3	174.2	86.3	135.8	61.3	47.8	96.6	49.5
1961 IV	83.5	171.8	86.4	134.5	62.1	48.6	96.6	50.3
1962 I	84.0	182.9	85.9	140.8	59.7	45.9	97.8	47.0
1962 II	85.4	171.6	86.3	134.3	63.6	49.8	99.1	50.3
1962 III	84.0	165.4	86.6	130.8	64.2	50.8	97.0	52.4
1962 IV	83.3	164.6	87.1	130.6	63.8	50.6	95.7	52.9
1963 I	86.4	166.6	86.4	131.4	65.7	51.9	100.0	51.9
1963 II	88.2	166.9	87.0	131.8	66.9	52.8	101.3	52.2
1963 III	86.7	162.0	87.4	129.1	67.1	53.5	99.2	54.0
1963 IV	86.3	159.2	87.8	127.7	67.6	54.2	98.3	55.2
1964 I	83.0	149.2	87.4	121.7	68.2	55.6	95.0	58.5
1964 II	84.0	158.4	87.7	127.2	66.1	53.0	95.8	55.4
1964 III	86.2	157.8	88.2	127.0	67.9	54.6	97.7	55.9
1964 IV	86.1	152.1	88.6	123.9	69.5	56.6	97.1	58.3
1965 I	88.4	148.2	89.1	121.8	72.6	59.7	99.2	60.1
1965 II	87.1	156.1	89.2	126.4	68.9	55.8	97.6	57.1
1965 III	90.3	147.9	89.3	121.6	74.3	61.1	101.2	60.4
1965 IV	85.7	149.9	89.3	122.9	69.8	57.2	96.0	59.6

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	87.7	142.7	89.4	118.6	73.9	61.5	98.1	62.7
1966 II	82.9	137.6	89.6	115.7	71.6	60.2	92.5	65.1
1966 III	79.6	133.0	89.7	113.1	70.4	59.9	88.8	67.4
1966 IV	81.7	133.4	89.8	113.4	72.1	61.3	91.0	67.3
1967 I	85.7	134.3	90.0	114.0	75.2	63.8	95.2	67.0
1967 II	85.0	126.4	90.2	109.4	77.7	67.3	94.3	71.3
1967 III	88.3	133.4	90.4	113.6	77.7	66.2	97.7	67.8
1967 IV	90.0	132.7	90.6	113.3	79.4	67.8	99.3	68.2
1968 I	86.5	131.3	90.7	112.5	76.9	65.9	95.4	69.1
1968 II	82.0	129.6	90.8	111.6	73.5	63.3	90.3	70.1
1968 III	86.5	127.7	91.0	110.5	78.3	67.7	95.0	71.3
1968 IV	87.0	127.2	91.2	110.3	78.8	68.4	95.4	71.7
1969 I	91.1	139.0	91.5	117.3	77.7	65.5	99.6	65.8
1969 II	85.9	124.5	91.6	108.9	78.9	69.0	93.8	73.6
1969 III	87.1	120.5	91.7	106.6	81.7	72.3	95.0	76.1
1969 IV	85.3	116.4	91.7	104.2	81.9	73.3	93.0	78.8
1970 I	88.5	115.2	91.8	103.7	85.3	76.8	96.3	79.7
1970 II	93.3	118.2	92.1	105.3	88.6	78.9	101.3	77.9
1970 III	90.1	113.3	92.3	103.0	87.4	79.5	97.5	81.5
1970 IV	96.5	110.5	92.6	101.8	94.9	87.3	104.3	83.8
1971 I	101.5	109.7	93.0	101.6	100.0	92.6	109.2	84.8
1971 II	96.1	112.8	93.3	103.2	93.1	85.2	103.0	82.7
1971 III	94.4	107.9	93.5	100.9	93.5	87.5	100.9	86.7
1971 IV	97.5	111.1	93.7	102.6	95.1	87.8	104.1	84.3
1972 I	103.0	113.4	93.8	103.8	99.3	90.8	109.9	82.7
1972 II	101.3	109.5	93.8	101.9	99.4	92.5	108.0	85.7
1972 III	84.7	113.8	93.9	104.1	81.4	74.4	90.1	82.5
1972 IV	91.9	111.9	94.1	103.2	89.1	82.1	97.7	84.1
1973 I	97.8	109.4	94.2	102.0	95.8	89.4	103.8	86.1
1973 II	93.0	109.2	94.8	102.2	91.0	85.2	98.1	86.8
1973 III	87.3	109.2	95.4	102.5	85.2	80.0	91.6	87.3
1973 IV	100.2	110.0	96.0	103.2	97.1	91.1	104.5	87.2
1974 I	89.1	118.7	96.2	107.6	82.8	75.1	92.6	81.1
1974 II	99.8	109.8	96.5	103.4	96.5	90.9	103.4	87.9
1974 III	95.7	105.0	96.8	101.2	94.6	91.1	98.8	92.2
1974 IV	96.6	107.4	97.0	102.5	94.3	90.0	99.6	90.3

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

5. Farming

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	95.4	105.1	97.3	101.5	94.1	90.8	98.1	92.5
1975 II	103.3	104.6	97.6	101.4	101.9	98.8	105.8	93.3
1975 III	105.6	108.2	98.0	103.4	102.2	97.6	107.7	90.6
1975 IV	100.9	104.1	98.4	101.6	99.3	96.9	102.5	94.5
1976 I	100.7	99.7	98.7	99.6	101.2	101.0	102.0	99.0
1976 II	93.6	103.5	98.8	101.5	92.3	90.5	94.7	95.5
1976 III	93.8	101.4	99.1	100.6	93.3	92.5	94.7	97.7
1976 IV	98.8	98.4	99.2	99.1	99.7	100.5	99.7	100.8
1977 I	100.4	98.5	99.4	99.2	101.2	101.9	101.0	100.9
1977 II	95.2	103.4	99.6	101.6	93.7	92.1	95.6	96.3
1977 III	105.2	97.6	99.8	98.8	106.5	107.8	105.5	102.2
1977 IV	99.2	100.5	100.0	100.3	98.9	98.6	99.2	99.5
1978 I	101.7	102.3	100.2	101.2	100.5	99.5	101.6	97.9
1978 II	95.4	100.9	100.7	100.8	94.6	94.6	94.7	99.8
1978 III	100.3	101.6	101.3	101.5	98.9	98.7	99.0	99.7
1978 IV	101.5	102.0	101.8	101.9	99.5	99.5	99.6	99.8
1979 I	101.3	101.9	102.4	102.1	99.1	99.4	98.9	100.5
1979 II	107.8	96.6	102.9	99.8	108.0	111.6	104.8	106.6
1979 III	107.2	97.2	103.5	100.4	106.8	110.3	103.6	106.5
1979 IV	109.4	103.4	104.1	103.8	105.4	105.8	105.1	100.7
1980 I	113.4	98.4	104.6	101.6	111.6	115.2	108.4	106.3
1980 II	115.8	93.5	105.0	99.3	116.6	123.9	110.3	112.3
1980 III	100.8	95.8	105.1	100.6	100.2	105.2	95.9	109.7
1980 IV	101.2	101.5	106.0	103.8	97.5	99.8	95.5	104.5
1981 I	101.8	100.0	106.3	103.2	98.7	101.8	95.8	106.2

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TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	35.3	80.6	37.8	69.5	50.8	43.8	93.3	47.0
1948 II	35.7	79.4	38.4	68.8	51.9	45.0	93.0	48.4
1948 III	36.3	79.4	38.9	69.0	52.6	45.7	93.2	49.0
1948 IV	36.1	78.3	39.2	68.3	52.9	46.1	92.2	50.1
1949 I	35.0	75.2	39.1	66.0	53.1	46.6	89.6	52.0
1949 II	33.8	71.8	39.4	63.7	53.0	47.0	85.6	54.9
1949 III	34.0	71.6	39.7	63.6	53.5	47.5	85.6	55.5
1949 IV	33.1	70.7	40.0	63.0	52.6	46.9	82.9	56.5
1950 I	34.6	72.9	40.5	64.7	53.5	47.5	85.5	55.6
1950 II	37.6	76.2	40.8	67.2	55.9	49.3	92.2	53.5
1950 III	40.8	80.7	41.1	70.5	57.9	50.6	99.3	50.9
1950 IV	41.7	82.9	41.5	72.3	57.8	50.3	100.6	50.0
1951 I	43.3	84.7	43.3	74.1	58.4	51.0	99.9	51.1
1951 II	43.7	85.3	43.8	74.7	58.5	51.2	99.9	51.3
1951 III	42.6	83.6	44.3	73.6	57.8	50.9	96.1	53.0
1951 IV	42.9	83.3	44.8	73.5	58.3	51.5	95.8	53.8
1952 I	43.7	84.6	45.3	74.6	58.6	51.7	96.6	53.5
1952 II	43.1	83.6	45.7	74.0	58.2	51.5	94.1	54.7
1952 III	44.0	84.5	46.4	74.9	58.7	52.0	94.6	55.0
1952 IV	47.3	89.1	46.6	78.2	60.5	53.1	101.6	52.3
1953 I	48.2	91.0	46.9	79.7	60.5	53.0	102.8	51.6
1953 II	48.4	91.6	47.4	80.3	60.3	52.8	102.2	51.7
1953 III	48.0	90.0	47.8	79.2	60.6	53.4	100.5	53.1
1953 IV	45.6	86.6	48.2	76.9	59.3	52.7	94.7	55.7
1954 I	44.0	83.7	48.5	74.9	58.7	52.6	90.8	57.9
1954 II	43.8	81.9	48.4	73.6	59.6	53.5	90.5	59.1
1954 III	43.8	80.7	48.6	72.8	60.2	54.3	90.2	60.2
1954 IV	45.0	82.1	49.0	73.9	60.9	54.9	91.9	59.7
1955 I	47.2	84.3	49.2	75.5	62.5	56.0	95.9	58.4
1955 II	49.1	86.6	49.8	77.4	63.4	56.7	98.6	57.5
1955 III	49.3	87.0	50.4	77.9	63.3	56.7	97.8	58.0
1955 IV	50.0	88.6	51.0	79.2	63.2	56.5	98.2	57.5
1956 I	49.6	88.3	51.6	79.2	62.6	56.1	96.1	58.4
1956 II	49.2	87.9	52.3	79.0	62.3	56.0	94.1	59.5
1956 III	48.2	86.8	52.9	78.5	61.4	55.5	91.2	60.9
1956 IV	50.1	88.6	53.4	79.9	62.7	56.5	93.7	60.3

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	50.7	88.5	53.5	79.9	63.5	57.3	94.7	60.5
1957 II	49.9	87.4	54.3	79.3	63.0	57.2	92.0	62.1
1957 III	49.9	86.4	54.6	78.7	63.5	57.8	91.4	63.2
1957 IV	47.5	83.8	54.9	76.9	61.7	56.6	86.4	65.5
1958 I	44.3	80.1	55.1	74.3	59.7	55.3	80.5	68.7
1958 II	43.5	77.6	55.0	72.5	60.1	56.1	79.2	70.8
1958 III	45.6	79.1	55.1	73.5	62.0	57.6	82.7	69.7
1958 IV	47.6	80.7	55.3	74.8	63.7	59.0	86.1	68.5
1959 I	50.0	83.6	55.4	76.9	65.0	59.8	90.3	66.2
1959 II	52.4	86.0	55.7	78.7	66.5	60.9	93.9	64.8
1959 III	49.9	84.7	55.9	77.8	64.2	59.0	89.3	66.0
1959 IV	49.9	84.4	56.3	77.7	64.2	59.1	88.7	66.7
1960 I	52.9	86.7	56.6	79.5	66.5	61.0	93.3	65.3
1960 II	51.2	85.5	56.9	78.7	65.1	59.9	90.0	66.6
1960 III	50.1	83.9	57.2	77.6	64.6	59.7	87.7	68.1
1960 IV	48.7	81.4	57.1	75.8	64.3	59.8	85.3	70.2
1961 I	47.9	80.4	57.2	75.0	63.9	59.6	83.7	71.1
1961 II	50.0	81.7	57.4	76.0	65.8	61.2	87.1	70.3
1961 III	51.7	82.6	57.7	76.8	67.3	62.6	89.6	69.9
1961 IV	53.5	84.2	58.1	78.1	68.5	63.5	92.1	69.0
1962 I	54.2	84.8	58.5	78.7	68.9	63.8	92.5	69.0
1962 II	54.7	86.1	58.9	79.7	68.7	63.6	93.0	68.4
1962 III	55.4	86.0	59.3	79.7	69.5	64.4	93.4	68.9
1962 IV	56.2	85.6	59.5	79.5	70.7	65.7	94.4	69.5
1963 I	57.7	85.9	59.9	79.8	72.3	67.1	96.3	69.7
1963 II	59.6	86.5	60.3	80.3	74.2	68.9	98.9	69.7
1963 III	60.2	86.8	60.6	80.7	74.6	69.4	99.3	69.9
1963 IV	61.4	87.0	60.9	80.9	75.8	70.5	100.8	70.0
1964 I	62.2	87.2	61.3	81.1	76.7	71.4	101.6	70.3
1964 II	63.6	88.1	61.6	81.9	77.6	72.2	103.2	69.9
1964 III	64.6	88.9	62.0	82.6	78.2	72.7	104.2	69.8
1964 IV	65.4	89.4	62.7	83.2	78.6	73.2	104.3	70.1
1965 I	67.9	92.0	63.3	85.2	79.7	73.9	107.2	68.9
1965 II	69.3	92.8	64.0	86.0	80.5	74.6	108.2	69.0
1965 III	70.6	93.9	64.8	87.1	81.1	75.2	109.0	69.0
1965 IV	71.7	95.7	65.5	88.6	81.0	74.9	109.5	68.5

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	73.8	97.8	66.5	90.4	81.6	75.4	111.0	67.9
1966 II	75.2	99.6	67.6	92.0	81.7	75.5	111.3	67.8
1966 III	75.9	100.4	68.7	92.9	81.6	75.6	110.4	68.4
1966 IV	76.2	101.0	69.9	93.7	81.3	75.5	109.1	69.2
1967 I	74.9	100.1	71.1	93.4	80.2	74.8	105.3	71.0
1967 II	74.3	99.0	72.1	92.8	80.1	75.1	103.1	72.8
1967 III	74.6	99.2	72.9	93.2	80.1	75.2	102.3	73.5
1967 IV	76.5	99.9	73.8	94.0	81.5	76.6	103.8	73.8
1968 I	77.8	100.3	74.4	94.5	82.4	77.6	104.6	74.2
1968 II	79.0	101.0	75.2	95.2	83.0	78.2	105.0	74.4
1968 III	79.5	101.8	76.0	95.9	82.8	78.1	104.6	74.6
1968 IV	80.4	102.4	76.6	96.6	83.3	78.5	105.0	74.8
1969 I	81.7	102.6	77.4	97.0	84.2	79.6	105.5	75.4
1969 II	81.8	103.3	78.2	97.6	83.7	79.2	104.6	75.7
1969 III	82.4	103.6	79.0	98.1	84.0	79.6	104.4	76.2
1969 IV	81.4	102.5	79.6	97.5	83.5	79.4	102.3	77.6
1970 I	78.5	101.0	80.1	96.5	81.3	77.7	98.0	79.3
1970 II	77.6	98.6	80.7	94.8	81.9	78.7	96.2	81.8
1970 III	77.1	96.7	81.2	93.5	82.5	79.7	95.0	83.9
1970 IV	75.2	93.2	81.5	90.9	82.7	80.7	92.3	87.4
1971 I	77.4	93.9	81.8	91.5	84.6	82.5	94.6	87.1
1971 II	78.5	93.8	82.1	91.5	85.7	83.7	95.5	87.6
1971 III	78.8	93.1	82.3	91.1	86.5	84.6	95.8	88.4
1971 IV	80.4	94.0	82.5	91.8	87.6	85.6	97.5	87.8
1972 I	82.6	95.7	82.9	93.2	88.6	86.3	99.6	86.6
1972 II	84.8	97.3	83.5	94.6	89.7	87.2	101.7	85.7
1972 III	87.0	97.9	84.1	95.1	91.4	88.9	103.4	85.9
1972 IV	91.0	100.0	84.6	96.8	94.0	91.0	107.6	84.6
1973 I	94.4	102.1	85.3	98.6	95.7	92.4	110.6	83.6
1973 II	96.3	103.1	86.0	99.5	96.7	93.4	111.9	83.5
1973 III	96.9	103.2	86.8	99.8	97.1	93.9	111.7	84.1
1973 IV	96.5	104.1	87.7	100.8	95.8	92.7	110.0	84.3
1974 I	93.0	103.2	88.8	100.3	92.7	90.2	104.8	86.0
1974 II	92.9	102.0	89.9	99.7	93.2	91.1	103.4	88.1
1974 III	93.4	101.8	91.0	99.8	93.5	91.8	102.7	89.4
1974 IV	88.6	98.1	92.1	97.3	91.1	90.4	96.3	93.9

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

6. Manufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	81.0	91.4	92.7	92.5	87.6	88.6	87.4	101.4
1975 II	82.8	89.8	93.0	91.3	90.7	92.2	89.0	103.5
1975 III	88.2	91.2	93.2	92.4	95.5	96.7	94.6	102.2
1975 IV	90.0	93.2	93.6	94.0	95.7	96.6	96.2	100.4
1976 I	92.2	95.6	94.2	96.0	96.0	96.4	97.9	98.5
1976 II	93.3	95.6	95.0	96.2	97.0	97.6	98.3	99.3
1976 III	94.3	96.1	95.8	96.8	97.4	98.1	98.5	99.6
1976 IV	95.0	96.5	96.5	97.2	97.7	98.5	98.4	100.1
1977 I	97.0	98.0	97.4	98.5	98.4	99.0	99.6	99.4
1977 II	99.8	99.7	98.3	99.7	100.1	100.1	101.6	98.5
1977 III	101.2	100.5	99.3	100.4	100.8	100.6	101.9	98.7
1977 IV	102.1	101.6	100.0	101.2	100.8	100.5	102.1	98.5
1978 I	101.9	102.5	101.0	102.1	99.8	99.4	100.9	98.6
1978 II	104.7	104.0	102.1	103.6	101.0	100.6	102.5	98.1
1978 III	106.6	104.8	103.1	104.4	102.1	101.7	103.3	98.4
1978 IV	108.3	106.2	104.1	105.7	102.5	102.0	104.1	98.0
1979 I	109.3	107.7	105.4	107.2	102.0	101.5	103.6	97.9
1979 II	108.5	106.1	106.7	106.3	102.1	102.3	101.7	100.5
1979 III	108.5	106.5	107.8	106.9	101.5	101.9	100.7	101.2
1979 IV	108.3	106.3	108.8	106.9	101.2	101.9	99.5	102.4
1980 I	108.3	106.2	109.9	107.2	101.1	102.0	98.6	103.5
1980 II	101.8	101.2	110.7	103.6	98.3	100.7	92.0	109.4
1980 III	99.8	99.5	111.3	102.5	97.3	100.3	89.6	111.9
1980 IV	105.3	102.1	111.8	104.6	100.6	103.0	94.2	109.4
1981 I	106.8	103.2	112.8	105.7	101.1	103.5	94.7	109.2

May 22, 1981

Section D: Table VIII a.
Labor Productivity in the U.S. Economy
by Sector: Selected Years
(1972 Constant Dollars per Hour)

	1948	1965	1973	1979	1980
Private Business Economy	3.48	5.91	7.17	7.51	7.49
Private Goods Industries:					
Goods Producing	2.93	5.70	7.08	7.46	7.37
Farming	1.13	2.73	4.03	4.99	5.17
Mining	5.32	10.82	13.15	9.53	9.54
Construction	4.49	6.93	6.46	5.37	4.94
Manufacturing	3.65	6.03	7.52	8.23	8.20
Private Services Industries:					
Service Producing	4.12	6.10	7.24	7.55	7.57
Transportation	4.11	6.07	7.47	8.02	8.39
Communication	3.11	9.08	13.21	18.48	18.53
Public Utilities	4.50	14.00	18.88	19.58	19.87
Trade	2.97	4.71	6.06	6.34	6.32
Finance & Insurance	5.61	7.03	7.74	7.67	7.43
Real Estate	24.10	29.69	29.87	27.39	26.69
Services	4.63	5.35	5.54	5.58	5.65

Section D: Table VIII b.
Capital Stock per
in the U.S. Economy by Sector: Selected Years
(1972 Constant Dollars per Hour)

	1948	1965	1973	1979	1980
Private Business Economy	11.83	17.67	21.23	22.87	23.66
Private Goods Industries:					
Goods Producing	8.83	14.14	16.47	18.57	19.49
Farming	12.30	31.40	46.36	55.33	57.65
Mining	22.76	64.80	74.34	61.84	59.86
Construction	1.68	3.44	4.05	3.86	3.80
Manufacturing	7.03	9.96	12.11	14.52	15.57
Private Services Industries:					
Service Producing	15.38	20.88	25.05	25.97	26.45
Transportation	16.57	24.88	27.64	29.75	31.26
Communication	11.36	31.48	42.82	51.66	52.37
Public Utilities	49.45	96.51	134.88	157.90	159.58
Trade	2.75	5.34	7.55	8.27	8.61
Finance & Insurance	3.95	6.27	10.07	13.50	14.29
Real Estate*	n.a.	n.a.	n.a.	n.a.	n.a.
Services	15.51	22.21	24.97	24.30	24.35

* Not Applicable; capital stock is not truly comparable in a technical sense with that of goods producing or service industries. Hence, levels of capital per hour are not shown.

Section D: Table VIIIc.
Labor Productivity in the U.S. Economy
by Sector: Growth Rates by Selected Years

	1948-65	1965-73	1973-79	1979-80
Private Business Economy	3.2%	2.4%	0.8%	-0.3%
Private Goods Industries:				
Goods Producing	4.0	2.7	0.9	-1.2
Farming	5.3	5.0	3.6	3.6
Mining	4.3	2.5	-5.2	-0.1
Construction	2.6	-0.9	-3.0	-8.0
Manufacturing	3.0	2.8	1.5	-0.4
Private Services Industries:				
Service Producing	2.3	2.2	.7	0.3
Transportation	2.3	2.6	1.2	4.6
Communication	6.5	4.8	5.8	0.3
Public Utilities	6.9	3.8	0.6	1.5
Trade	2.7	3.2	0.8	-0.3
Finance & Insurance	1.3	1.2	-0.2	-3.2
Real Estate	1.2	.1	-1.4	-2.6
Services	0.9	0.4	0.1	1.3

Section D: Table VIIId.
Capital Stock per Hour in the U.S. Economy
by Sector: Growth Rates by Selected Years

	1948-65	1965-73	1973-79	1979-80
Private Business Economy	2.4%	2.3%	1.2%	3.5%
Private Goods Industries:				
Goods Producing	2.8	1.9	2.0	5.0
Farming	5.7	5.0	3.0	4.2
Mining	6.3	1.7	-3.0	-3.2
Construction	4.3	2.1	-0.8	1.6
Manufacturing	2.1	2.5	3.1	7.2
Private Services Industries:				
Service Producing	1.8	2.3	0.6	1.8
Transportation	2.4	1.3	1.2	5.1
Communication	6.2	3.9	3.2	1.4
Public Utilities	4.0	4.3	2.7	1.1
Trade	4.0	4.4	1.5	4.1
Finance & Insurance	2.8	6.1	5.0	5.9
Real Estate	n.a.	n.a.	n.a.	n.a.
Services	2.1	1.5	-0.5	0.2

* Not Applicable; capital stock is not truly comparable in a technical sense with that of goods producing or service industries. Hence, levels of capital per hour are not shown.

SUMMARY NOTE ON SOURCES OF DATA AND METHODOLOGY

Basically, the sources of data and methodology used to estimate total factor productivity are the same as detailed in Productivity in the United States, Trends and Cycles (The John Hopkins University Press, 1980), by Drs. John W. Kendrick and Elliot S. Grossman.

A. Annual Series

Real Output

Output is the annual series of gross product originating in constant 1972 dollars as estimated by the Bureau of Economic Analysis (B.E.A.) in its National Income and Product Accounts program. Each sector is used directly as published except for:

1. services, which excludes in the APC series real output for households and institutions (See Survey of Current Business, table 6.2); and includes government enterprises.

2. real estate, which excludes owner-occupied nonfarm housing, and rental value of nonprofit real estate.

3. and agriculture, which includes only S.I.C. 01-02 farming. Agricultural services, forestry and fisheries (S.I.C. 07-09) are excluded from this sector.

Output for the manufacturing and nonfarm nonmanufacturing segments are the sum of their individual industry outputs. The sum of these two segments plus farming yields output for the private business economy. Output for nonfinancial corporate

business is taken directly from the Bureau of Labor Statistics series, which is based on B.E.A. estimates.

Labor Hours

In general, labor hours are based on B.L.S. data. The figures represent total hours paid for, not hours actually worked. Employment for each industry includes all employees on the payrolls (production and nonproduction workers); self-employed (formerly termed proprietors); and unpaid family workers. The figures on all persons employed are then multiplied by their respective average hours worked per week and the sum total of these products is multiplied by 52 weeks to derive hours of all persons.[1]

The B.L.S. manufacturing labor hours (all persons) is used as a control total to ensure that the individual manufacturing industry group hours agree in total. The adjustments generally ranged less than one percent, plus or minus.

Capital Input

This APC Multiple Input Productivity Index series uses the same sources of data and methodology to estimate real capital as the Kendrick-Grossman study. The only changes are with respect to the nonfarm nonmanufacturing sector, and the most recent revisions in investment data, deflators, and inventory.

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1 This approach is consistent in theory with the "hours paid for" concept assuming vacation time, sick leave, holidays, etc., are in fact paid for as provided in many union agreements.

In general, fixed capital is estimated using the "perpetual inventory method." That is,

$$GK_t = GK_{t-1} (1-R) + GI_t$$

where, GK_t is current fixed capital,

GK_{t-1} is fixed capital from the previous period,

R is the retirement rate, and GI_t is the current level of investment.

Added to GK_t, fixed capital, are imputations for land and end-of-period inventory. The source for the land imputation is the 1972 ratio of land to depreciable fixed assets, as published by the IRS. The only exception is for farming, where direct estimates from the Department of Agriculture are obtained.

Fixed capital data for the major segments of the economy and sectors are controlled to B.E.A. estimates, except for nonfarm nonmanufacturing. That is, farming and non-financial corporate business end-of-year fixed capital stocks data are taken to be the B.E.A. estimates. Five manufacturing industries capital data are adjusted to agree with the B.E.A. estimates of fixed capital. The remaining fixed capital estimates for the nonfarm nonmanufacturing industries are a continuation of original estimates as published by the B.L.S. in "Capital Stock Estimates for Input-Output Industries: Methods and Data," (Bulletin 2034, 1979). Also, real estate fixed capital includes residential tenant-occupied (rental) housing, and services fixed capital includes government enterprises, controlled to estimates of these series as published by the B.E.A.

B. Quarterly Sector Estimates

Output and Labor Input

Quarterly output and labor hours for the private business, farming, manufacturing, nonfarm nonmanufacturing, and the non-financial corporate business segments of the economy are taken directly from the B.L.S. estimates.

Capital Input

Fixed capital, land and inventory for the fourth quarter of each year are the same as for the annual segments and sectors. Quarterly figures on inventory are taken from the Survey of Current Business; and the B.L.S. land series is based on the ratio of land to fixed capital for each year using the annual data. Finally, quarterly interpolation is based on quarterly investment series for each of the sectors, using the retirement rates for each year as implied by the annual fixed capital and investment data.

The private business economy total is the sum of the component sectors farming, manufacturing, and the several sectors in the nonfarm nonmanufacturing segment which includes the following: mining, construction, transportation, communications, public utilities, trade, finance and insurance, real estate and "other" services (including health, educational, professional, and household/domestic services).

C. General Notes

Weights of Capital-Labor Shares

In order to calculate multiple-factor input, indexes of labor and capital are weighted and added together. The weights

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1948 I	35.4	64.4	36.4	55.4	64.0	55.0	97.4	56.5
1948 II	36.3	64.7	36.7	55.6	65.3	56.1	99.0	56.7
1948 III	36.1	65.4	37.0	56.2	64.3	55.3	97.8	56.5
1948 IV	36.7	65.1	37.2	56.1	65.4	56.3	98.5	57.2
1949 I	36.2	64.9	37.4	56.0	64.6	55.7	96.7	57.6
1949 II	36.0	64.6	37.6	55.8	64.6	55.8	95.9	58.3
1949 III	36.2	63.7	37.9	55.3	65.4	56.8	95.6	59.4
1949 IV	35.8	63.6	38.0	55.3	64.7	56.2	94.1	59.7
1950 I	37.4	63.3	38.2	55.1	67.8	59.0	97.7	60.5
1950 II	38.4	64.3	38.6	55.9	68.6	59.7	99.5	60.0
1950 III	39.3	65.4	38.9	56.8	69.1	60.0	101.0	59.4
1950 IV	39.7	65.4	39.3	56.9	69.9	60.8	101.2	60.1
1951 I	39.4	66.3	39.6	57.6	68.4	59.4	99.6	59.6
1951 II	39.6	66.9	39.9	58.1	68.1	59.2	99.2	59.6
1951 III	40.9	66.4	40.1	57.8	70.7	61.5	101.9	60.4
1951 IV	41.3	66.7	40.3	58.1	71.0	61.9	102.4	60.5
1952 I	41.2	66.9	40.5	58.3	70.7	61.6	101.9	60.5
1952 II	41.7	66.7	40.7	58.2	71.6	62.5	102.4	61.0
1952 III	41.6	66.9	40.9	58.4	71.1	62.1	101.5	61.2
1952 IV	42.1	67.9	41.2	59.2	71.1	62.0	102.2	60.7
1953 I	42.7	68.1	41.4	59.4	71.8	62.6	103.0	60.8
1953 II	43.1	68.0	41.7	59.4	72.5	63.4	103.4	61.3
1953 III	42.8	67.6	42.0	59.2	72.3	63.4	102.1	62.1
1953 IV	42.8	67.5	42.2	59.3	72.2	63.3	101.4	62.5
1954 I	42.7	67.4	42.4	59.3	72.1	63.3	100.6	63.0
1954 II	42.5	67.3	42.7	59.3	71.7	63.2	99.5	63.5
1954 III	43.3	67.4	43.0	59.4	72.9	64.2	100.6	63.9
1954 IV	44.1	68.4	43.3	60.2	73.3	64.5	101.9	63.3
1955 I	45.2	69.0	43.6	60.7	74.4	65.5	103.5	63.2
1955 II	45.8	69.2	44.0	61.0	75.1	66.1	104.0	63.6
1955 III	46.7	70.1	44.5	61.7	75.7	66.6	105.1	63.4
1955 IV	47.0	71.0	44.9	62.5	75.2	66.1	104.7	63.1
1956 I	47.2	71.6	45.2	63.0	75.0	65.9	104.6	63.1
1956 II	48.1	72.2	45.5	63.5	75.7	66.6	105.6	63.1
1956 III	48.2	72.1	45.9	63.6	75.9	66.8	105.0	63.6
1956 IV	48.2	72.1	46.2	63.6	75.8	66.9	104.3	64.1

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1957 I	48.4	72.1	46.6	63.7	75.9	67.1	103.9	64.6
1957 II	48.7	72.4	47.0	64.0	76.0	67.3	103.6	64.9
1957 III	48.8	72.5	47.4	64.2	75.9	67.3	102.9	65.4
1957 IV	48.9	71.5	47.7	63.7	76.9	68.5	102.5	66.8
1958 I	48.4	70.5	48.0	63.1	76.7	68.6	100.8	68.1
1958 II	48.7	69.8	48.3	62.7	77.7	69.7	100.8	69.2
1958 III	49.5	70.7	48.6	63.4	78.0	70.0	101.7	68.8
1958 IV	51.0	71.6	49.0	64.1	79.5	71.2	104.1	68.4
1959 I	51.7	72.1	49.3	64.6	80.0	71.6	104.8	68.3
1959 II	52.8	73.0	49.8	65.4	80.7	72.2	106.0	68.1
1959 III	52.6	73.5	50.2	65.8	80.0	71.6	104.8	68.3
1959 IV	52.9	73.5	50.6	65.9	80.2	72.0	104.5	68.8
1960 I	53.4	73.4	51.0	66.1	80.9	72.7	104.7	69.5
1960 II	53.6	74.0	51.5	66.6	80.5	72.5	104.1	69.6
1960 III	53.6	74.1	51.9	66.8	80.3	72.4	103.3	70.0
1960 IV	53.4	73.9	52.3	66.8	79.9	72.2	102.2	70.7
1961 I	54.0	73.7	52.6	66.8	80.8	73.2	102.6	71.4
1961 II	54.6	73.2	53.0	66.6	81.9	74.5	102.9	72.4
1961 III	54.9	73.4	53.5	66.9	82.1	74.8	102.7	72.9
1961 IV	56.2	73.9	53.9	67.4	83.4	76.0	104.2	73.0
1962 I	56.9	74.1	54.4	67.7	84.1	76.8	104.5	73.5
1962 II	57.2	74.9	55.0	68.4	83.6	76.3	104.1	73.3
1962 III	57.8	74.7	55.5	68.5	84.4	77.3	104.1	74.3
1962 IV	57.9	74.1	56.0	68.2	84.8	78.1	103.4	75.5
1963 I	57.9	74.7	56.5	68.8	84.2	77.6	102.6	75.6
1963 II	58.5	75.2	57.0	69.3	84.5	77.8	102.7	75.8
1963 III	59.5	75.4	57.5	69.6	85.4	78.9	103.4	76.3
1963 IV	59.8	76.0	58.1	70.2	85.1	78.6	102.9	76.4
1964 I	61.3	76.6	58.6	70.8	86.6	80.0	104.6	76.5
1964 II	61.9	76.9	59.3	71.2	87.0	80.6	104.5	77.1
1964 III	62.9	77.1	59.9	71.6	87.8	81.6	104.9	77.8
1964 IV	63.6	78.1	60.5	72.4	87.8	81.4	105.1	77.4
1965 I	64.6	78.7	61.2	73.1	88.4	82.1	105.6	77.7
1965 II	65.6	79.4	61.9	73.8	88.9	82.6	106.0	77.9
1965 III	65.9	79.1	62.8	73.9	89.2	83.4	105.0	79.4
1965 IV	68.1	79.6	63.2	74.4	91.5	85.5	107.6	79.4

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

Indexes of Real Output, Inputs, and Productivity Ratios
(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1966 I	69.1	80.3	63.9	75.1	92.0	86.0	108.0	79.6
1966 II	68.9	80.5	64.7	75.5	91.2	85.6	106.5	80.4
1966 III	69.7	80.9	65.5	76.0	91.6	86.1	106.4	80.9
1966 IV	69.9	80.6	66.2	76.1	91.9	86.7	105.6	82.1
1967 I	70.2	80.6	66.8	76.3	92.1	87.1	105.2	82.8
1967 II	71.4	80.6	67.4	76.5	93.3	88.6	105.9	83.6
1967 III	72.3	81.0	68.1	77.0	93.9	89.3	106.2	84.0
1967 IV	72.8	81.4	68.8	77.5	94.0	89.5	105.9	84.5
1968 I	73.7	81.6	69.5	77.9	94.7	90.4	106.1	85.2
1968 II	75.0	82.4	70.3	78.7	95.3	91.0	106.7	85.3
1968 III	76.4	83.2	71.1	79.5	96.1	91.8	107.5	85.4
1968 IV	76.8	83.8	71.8	80.2	95.7	91.6	106.8	85.7
1969 I	77.1	85.1	72.6	81.3	94.9	90.6	106.1	85.4
1969 II	77.7	86.0	73.5	82.2	94.6	90.4	105.7	85.5
1969 III	77.7	86.7	74.4	82.9	93.7	89.7	104.4	85.8
1969 IV	77.5	86.6	75.2	83.2	93.1	89.4	103.1	86.8
1970 I	77.9	86.9	75.9	83.6	93.2	89.6	102.7	87.3
1970 II	78.3	86.5	76.6	83.6	93.6	90.5	102.2	88.6
1970 III	79.6	86.3	77.4	83.8	95.0	92.2	102.8	89.7
1970 IV	78.5	87.0	78.1	84.4	92.9	90.2	100.5	89.7
1971 I	80.3	87.3	78.8	84.9	94.5	91.9	101.8	90.3
1971 II	80.4	87.8	79.6	85.5	94.1	91.6	101.0	90.7
1971 III	81.6	87.6	80.4	85.7	95.2	93.1	101.5	91.8
1971 IV	82.3	88.9	81.1	86.8	94.8	92.5	101.4	91.3
1972 I	83.9	89.6	81.9	87.5	95.9	93.6	102.4	91.4
1972 II	85.2	90.0	82.8	88.0	96.8	94.7	102.9	92.0
1972 III	86.4	90.4	83.6	88.6	97.5	95.6	103.3	92.5
1972 IV	87.5	91.0	84.5	89.3	97.9	96.2	103.5	92.9
1973 I	90.0	92.2	85.5	90.5	99.5	97.6	105.3	92.7
1973 II	89.4	93.2	86.5	91.5	97.7	95.9	103.3	92.8
1973 III	89.6	94.1	87.5	92.4	97.0	95.3	102.4	93.1
1973 IV	90.4	94.3	88.5	92.9	97.3	95.9	102.2	93.9
1974 I	90.4	94.3	89.3	93.2	97.0	95.8	101.2	94.7
1974 II	89.7	95.1	90.1	94.0	95.4	94.3	99.5	94.8
1974 III	88.3	95.0	90.9	94.2	93.7	93.0	97.1	95.7
1974 IV	88.3	94.3	91.6	94.0	93.9	93.6	96.4	97.1

TABLE VII. PRIVATE BUSINESS ECONOMY AND MAJOR SECTORS

7. Nonfarm Nonmanufacturing Industry

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(1977=100)

Year	Output and Inputs				Productivity Ratios			
	Real Output	Labor Input	Capital Input	Multi-Factor Input	Multi-Input Productivity	Output per Unit Labor	Output per Unit Capital	Capital-Labor Ratio
1975 I	88.0	93.1	92.0	93.4	94.2	94.4	95.7	98.7
1975 II	89.0	92.7	92.5	93.2	95.5	96.1	96.3	99.8
1975 III	89.9	93.5	93.1	94.0	95.6	96.1	96.5	99.6
1975 IV	90.6	94.8	93.7	95.1	95.3	95.5	96.7	98.8
1976 I	93.4	95.8	94.3	95.9	97.4	97.6	99.0	98.5
1976 II	94.1	95.7	95.1	96.2	97.8	98.3	98.9	99.4
1976 III	94.5	96.0	95.8	96.6	97.8	98.3	98.6	99.8
1976 IV	94.8	96.9	96.5	97.4	97.3	97.8	98.2	99.6
1977 I	97.6	98.0	97.3	98.4	99.2	99.6	100.3	99.3
1977 II	99.3	99.8	98.2	99.6	99.7	99.5	101.1	98.4
1977 III	101.1	100.9	99.2	100.5	100.6	100.2	102.0	98.3
1977 IV	102.0	101.9	100.0	101.4	100.6	100.1	102.0	98.2
1978 I	102.5	102.8	100.9	102.3	100.2	99.7	101.6	98.1
1978 II	105.0	105.4	101.9	104.3	100.6	99.6	103.0	96.7
1978 III	104.9	105.9	102.9	105.0	100.0	99.1	102.0	97.1
1978 IV	106.1	107.5	103.8	106.3	99.8	98.7	102.2	96.6
1979 I	107.2	108.7	104.7	107.5	99.8	98.6	102.4	96.3
1979 II	106.4	109.0	105.7	108.0	98.5	97.6	100.6	97.0
1979 III	107.4	110.4	106.7	109.2	98.3	97.3	100.7	96.6
1979 IV	108.1	111.2	107.5	110.0	98.3	97.2	100.6	96.7
1980 I	108.6	111.8	108.3	110.7	98.1	97.2	100.3	96.9
1980 II	106.6	110.1	109.1	109.9	97.0	96.8	97.8	99.1
1980 III	108.8	110.5	109.9	110.5	98.5	98.4	99.0	99.4
1980 IV	108.8	112.2	110.8	111.8	97.3	97.0	98.2	98.8
1981 I	110.9	113.1	112.0	112.9	98.3	98.1	99.0	99.1

May 22, 1981

are the respective shares of gross income originating by industry, after allocating net proprietors' income between compensation of labor and of capital. Multiple-input productivity is then defined as:

$$\text{Multiple-input productivity} = \frac{\text{Index of output}}{W_L * \text{index of labor} + W_k * \text{index of capital}}$$

(where W_L = labor share, W_k = capital share, and $W_L + W_k = 1.0$)

All indexes are based on 1977=100, to reflect the change in base recently adopted by the B.L.S.

Goods and Services Producing Segments

For all series, the Goods Producing Segment includes farming, manufacturing, mining and construction. The Services Producing Segment includes transportation, communications, public utilities, wholesale and retail trade, finance and insurance, real estate and "other" services.

Benchmark N.I.P.A. Revisions

The output and capital series reflect the revisions of the National Income and Product Account based on the new 1977 Census benchmark, except for the estimate of nonfarm nonmanufacturing fixed capital stock.